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ABSTRACT

This study examines how becoming a parent affects the lives of young men and women during the 7-year period following their graduation from high school. The study is based on data from the National Longitudinal Survey of the High School Class of 1972 (NLS), a large panel study of over 22,000 high school seniors who were the subjects of four follow-up surveys in 1973, 1974, 1976, and 1979. The research focuses on two subpopulations of the NLS: the over 8,000 participants who became parents by late 1979, and the approximately 5,000 who married but were childless at that time. Primary interests of the investigation were the educational and employment activities of the young adults. Also explored were the effects of parenthood on participation in political affairs and community groups, marital stability, financial well-being, and several attitudinal measures, including educational and career expectations. The principal finding was that young couples who became parents in the 1970s, like those in previous decades, modified their lifestyles in accordance with traditional family roles--the women serving as homemakers and mothers and the men as breadwinners. On the whole, they have met the demands and responsibilities of parenthood without changing their views of who they are or what they wish to accomplish. (RH)

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# Changes in the Lifestyles of New Parents

Gus W. Haggstrom, Linda J. Waite,
David E. Kanouse, Thomas J. Blaschke

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# PREFACE

This report presents results of a study of how young men and women reallocate their time as a result of becoming parents. It examines a wide range of activities, but focuses on two key aspects of the lives of young adults: education and employment. Data come from the National Longitudinal Study of the High School Class of 1972, a large national survey that has tracked over 22,000 young people who are now in their late twenties. The research was supported by Contract No. N01-HD-12819 awarded by the National Institute of Child Health and Human Development (NICHD), U.S. Department of Health and Human Services.

The findings and their policy implications are intended for a broad audience, including government policymakers, the research community, and high school and vocational counselors.

Previous Rand publications that draw on earlier versions of the same database to address related issues include:

> Gus W. Haggstrom, Thomas J. Blaschke, David E. Kanouse, William Lisowski, and Peter A. Morrison, *Teenage Parents: Their Ambitions and Attainments*, R-2771-NICHD, July 1981.
>
> David E. Kanouse, Gus W. Haggstrom, Thomas J. Blaschke, James P. Kahan, William Lisowski, and Peter A. Morrison, *Effects of Postsecondary Experiences on Aspirations, Attitudes, and Self-Conceptions*, R-2616-HEW, April 1980.

# SUMMARY

This study examines how becoming a parent affects the lives of young men and women during the seven-year period following their graduation from high school. Its principal finding is that young couples who became parents in the 1970s, like those in previous decades, have modified their lifestyles in accordance with traditional family roles—the women serving as homemakers and mothers and the men as breadwinners; but on the whole, they have met the demands and responsibilities of parenthood without changing their views of who they are or what they wish to accomplish.

Not surprisingly, we find that parenthood affects women's main activities much more than men's. Most mothers leave the labor force at or before the birth of their first child, and many remain unemployed at least through the child's second birthday. On average, the married mothers who do hold jobs during those two years lag behind childless married women in hours worked, wages, occupational status, and supervisory reponsibility, indicating that becoming a mother hinders career progress whether or not she remains employed. While motherhood may affect the careers of new mothers less severely than it did in the past, the burden of childcare still falls mainly on the mother, and she must sometimes choose what she believes is best for her family over what is best for promoting her career.

We also find that parents-to-be frequently behave differently from nonparents well before their first child is born. The pattern of our results indicates that the postsecondary activities of most young people are the product of conscious planning or are shaped by previously existing factors of long standing that direct them onto the paths they are to follow. One of our lesser findings, for example, is that married men who become fathers report higher levels of work activity than men who marry at about the same time but remain childless. The difference between the two groups is apparent long before the fathers become fathers, however, and therefore does not reflect a *consequence* of parenthood. Instead, it seems likely that men who work hard may, as a result, be able to shoulder family responsibilities sooner than other men—in which case the timing of parenthood responds to, instead of determines, work effort.

The study is based on data from the National Longitudinal Survey of the High School Class of 1972 (NLS), a large panel study of over 22,000 high school seniors who were the subjects of four follow-up surveys in 1973, 1974, 1976, and 1979. The research focuses on two subpopulations of the NLS: the over 8,000 NLS participants who became parents by late 1979, and approximately 5,000 who married but were still childless at that time. Our primary interests are the educational and employment activities of these young adults, but we also studied the effects of parenthood on participation in political affairs and community groups, marital stability, financial well-being, and several attitudinal measures, including educational and career expectations.

The NLS provides longitudinal measures of the participants' main activities as of the first week of October for each year from 1972 to 1979. Given the birthdates of the first child, we can determine which measures precede and which follow the birth. To assess the consequences of parenthood, we use an

"individual effects" model to analyze changes in parents' activities and other outcomes during the year preceding and the two years following the birth of the first child. The analogous changes for nonparents who married at about the same time and have similar background characteristics serve as a basis for comparison and permit estimating the changes in outcomes due to factors other than parenthood that affect the lives of young adults during the eventful seven years following high school graduation, when most of them complete their formal schooling, embark on careers, marry, and set up independent households.

Among the strongest consequences of parenthood that we find is marital stability. Only about 6 percent of the married parents in our sample underwent divorces in the first two years after childbirth, as opposed to an expected rate of 20 percent, based on divorce patterns of nonparents who married at about the same time. Perhaps children increase the rewards of marriage, raise the costs of divorce, or otherwise make the couple more reluctant to separate.

The changes in educational activities that parenthood induces roughly parallel changes in employment. For married women, there is a sharp drop in post-secondary enrollments during the last few months of pregnancy. Most of the married men in our study were not enrolled at the time their wives became pregnant; those who were enrolled apparently experienced little change. Perhaps surprisingly, mothers who were unwed at the time of the first birth report educational attainments and expectations that are higher on average than those of married mothers. It appears, then, that the depressing effect of parenthood on women's educational progress occurs mainly in the context of marriage, at least among the high school graduates in our study.

Entry into parenthood temporarily reduces the number of outside groups that parents join and the amount of activity they devote to them. The reduction begins before the baby is born and continues until the child reaches school age, at which time the trend reverses. That is, parents of school-age children tend to be affiliated with more groups than we would expect if they remained childless.

Much the same is true for political participation. Parents of preschool children appear less likely to register and to vote than nonparents, but again this seems to be temporary.

Family incomes tend to fall when young people become parents, because about half of the wives withdraw from the labor force during pregnancy. Unwed mothers are more likely to be welfare recipients than are ever-married mothers. However, fewer unwed mothers go on welfare than one might expect, considering the difficulties of providing for themselves and their children.

Taken together, our findings pertaining to employment, education, and financial well-being reveal that young couples' lives change substantially as the delivery date approaches and after the baby is born. A convenient summary measure of the shift toward home activities is the number of hours per week devoted to either schooling or employment. The average figure for young fathers is 45 hours both before and after the birth. For young wives it is 35 hours until the beginning of pregnancy, whereupon it goes into a sharp decline. By the month the first child is born, it has dropped to 7 hours. By three months after the birth, many mothers have resumed their previous activities; the average rises once more to 15 hours a week spent either in school or on the job—a figure that remains almost unchanged through the child's second birthday.

To determine whether the changes we observe reflect transitory adaptations or permanent alterations in lifestyle, we have analyzed several attitudinal measures that provide clues to the longer term consequences of parenthood. We find little evidence of upheaval—of marked changes in young adults' career and educational expectations during either the year before or the two years after the first birth. There is some fluctuation in the percentage of women who expect to be homemakers when they are 30, but other measures—work orientation, career expectations, and aspirations for professional employment—remain stable. We found no damaging effects of parenthood on young people's self-esteem (a measure of liking oneself) or locus of control (a measure of perceived control over one's fate). Evidently, most young people can cope competently and confidently with the responsibilities of parenthood. For young mothers especially, it is striking that they preserve their long-term goals and aspirations during the major shifts in their activities occasioned by pregnancy and childbirth. Most are apparently able to accommodate those circumstances without feeling that parenthood has foreclosed their long-term options.

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## Chapter 1

# INTRODUCTION

Each year, more than three million births take place in the United States. About 40 percent of these are first births that mark the creation of new families. The research reported here examines how the birth of a first child affects the lives of its parents, particularly how they reallocate their time across various activities, especially those concerned with schooling and employment.

Because it focuses on the time that parenthood takes away from activities the parents might otherwise engage in, our research addresses what the economists refer to as the "opportunity costs" of parenthood, as distinct from the direct or out-of-pocket costs of raising a child (Espenshade, 1980). Our purpose, however, is not to place a dollar value on those costs, as an economic analysis might do, but rather to illuminate how first-time parents accommodate their activities to the requirements of a new family. The birth of the first child marks a beginning not only for the child, but also of a new life course for the parents—an altered future in which there will be more Little League games and visits to pediatricians and, very likely, fewer beach parties and rock concerts than there would otherwise have been.

Perhaps most important, the demands of a new family may cause some parents to postpone or abandon activities that are crucial to their long-term goals. For example, some parents may forgo additional schooling so that the father can work to support the family or the mother can provide childcare. The demands of parenthood may lead some parents to seek different types of jobs, as fathers try to maximize income and mothers to combine childcare responsibilities with employment.

Parenthood may also induce some parents to take a more active role in community organizations, or make it more difficult for others to take any role at all. It may cause them to revise their educational and career goals—either upward as they strive to provide more for their families, or downward as they buckle under the constraints of parenthood.

Accordingly, the research reported here analyzes educational progress, labor force activity, job and career patterns, and community and political participation for mothers and fathers, and compares these with the activities of similar classmates who deferred parenthood. It also examines expectations regarding education and career.

The research uses data from the National Longitudinal Study of the High School Class of 1972, a large panel study of over 22,000 high school seniors who were the subjects of follow-up surveys in 1973, 1974, 1976, and 1979. By the time of the 1979 follow-up, the NLS participants had reached their mid-twenties and many had become parents. Most had completed their schooling and were already launched on their career paths. Because of the concentration of important activities and events in the young adult years, the ages covered by the NLS are critical for studying how family formation affects other aspects of people's lives.

# Chapter 2

# CONSEQUENCES OF PARENTHOOD

Our approach to studying the consequences of parenthood starts with a fundamental assumption: The effects of parenthood are not the same for everyone, but depend on each person's characteristics, history, and circumstances. Some of the differences depend on characteristics that are difficult to measure or to study systematically. However, many differences undoubtedly depend on easily measured characteristics—activities by sex, for example. In American society, despite considerable overlapping of roles, women have traditionally borne the responsibility for childcare and homemaking, and men for providing income for the family. But the picture has changed, especially for women. About half the mothers of young children perform some work outside the home, and two-thirds of women aged 25 to 54 participate in the labor force (Waite, 1981; U.S. Department of Labor, 1984). But because the average working woman earns less than the average working man, the husband provides more than half of the family income in virtually all husband-wife families (U.S. Bureau of the Census, 1980). And even when both the husband and the wife work, few husbands take on responsibility for childcare or household tasks (Stafford, 1980).

The division of labor by sex becomes most clear-cut upon marriage and, especially, parenthood. Roughly 75 percent of childless married women 25 to 34 years old participate in the labor force, but only 45 percent of married mothers of children under three years old do so. One out of three working mothers with young children works part time; virtually all of the fathers of young children work, and almost all work full time (U.S. Department of Labor, 1980).

Traditional definitions of the parental role suggest that men and women may well respond differently to parenthood in such spheres as job training, formal and vocational education, plans and aspirations for schooling, and work and career choices. Because women still retain primary responsibility for childcare, parenthood often restricts the types of jobs they can take (Hudis, 1976, 1977); and because men ordinarily are still the family's principal wage earner, parenthood prods them to earn more (Cramer, 1979b).

This report analyzes the effects of parenthood on the activities and behaviors of young men and women. Using data from the National Longitudinal Survey of the High School Class of 1972 (NLS), we examine changes due to childbearing and childrearing by tracing the paths of young adults for seven years following high school graduation. By the end of that period, these graduates were about 25 years old, nearly all had completed their formal schooling and had settled into a career path, most had married, and many had become parents. The longitudinal nature of the NLS enables us to follow individuals over time, observe changes in activities before and after childbearing, and compare the activities of parents with those of comparable people who are still childless. The additional advantages of the NLS—its large sample size, the recency of the data, the wealth of background information on the respondents, and the detailed information on their postsecondary activities—make it well suited to this analysis. Chapter 3 discusses this data set and the measures we create from it.

Although childbearing and childrearing affect men's and women's activities from the time they begin to plan for parenthood, we focus on effects that appear during the crucial early years of parenthood, especially parenthood that is initiated during the late teens and early twenties. We choose this focus for several reasons. First, role specialization begins during high school, if not earlier, when adolescents first make choices about what courses to take, and in the years that follow, when they make key decisions about further education, employment, marriage, and parenthood. Entry into marriage and parenthood during these years is likely to both shape and reflect choices about other activities (Presser, 1971; Bacon, 1974).

Second, for both men and women, changes in activities associated with parenthood appear most pronounced for the first birth (Lindert, 1978). Third, the effects of parenthood on other activities depend on its timing; marriage and childbearing before the completion of schooling seem to affect this and other activities more strongly than when these events occur later (Hofferth and Moore, 1979; Elder and Rockwell, 1976; Hogan, 1981). Current anecdotal evidence suggests that women who become established in jobs or career before their first child is born leave the labor force at lower rates than women whose first child appears before they are established, although little research evidence exists on this point. Sorensen (1983) finds that women who marry relatively late and who have children late are less likely than other women to leave the labor force when their first child is born. Thus, activity changes associated with childbearing and childrearing may be more pronounced for those who begin their families relatively early than for those who become parents later. Looking at this another way, the career plans of some women may cause them to forgo children or to begin their families relatively late.

Our analysis focuses on changes in activities associated with the first birth. We make this choice for a number of reasons. As stated above, previous research and current descriptive data show the greatest changes in various activities with entry into the parental role rather than with additions to an established family. This argues for considering separately changes due to the first and to subsequent births. Although the NLS provides information on first births for the majority of women and men, it is much less complete for later births. The relatively young average age of the NLS sample (about 25 years in 1979, the year of the most recent interview) means that only those individuals who had their first child at a relatively young age and/or who spaced children very closely had time to have more than one child through 1979. This data constraint is more severe for males than for females because males tend to be older at first marriage (and, by implication, at birth of first child). As a result, only a small number of second and higher-order births are available for analysis and those are from a highly censored sample. Hence, we limit our analysis to the first birth.

Our analysis focuses on how parenthood affects two key aspects of the lives of young adults: schooling and employment. We examine several dimensions of each. For example, because we believe that understanding educational progress entails more than totting up years of schooling completed, we also consider such measures as student status in each year, full-time/part-time status, hours in class, type of program (degree-credit or vocational), and expected educational attainment. Similarly, for employment, our analysis extends beyond the question of which women participate in the labor force; it also addresses full-time/part-time employment status, hours worked, weeks worked, number of employers, occupational characteristics, and homemaker status. In less detail, our analysis also examines family financial well-being, including assets, income, receipt of public assistance, and residential dependence.

We also give some attention to how plans and expectations change with parenthood. The relative stability of respondents' plans and expectations may indicate whether observed changes in current activities that accompany parenthood are transitory or lasting. For example, if plans and expectations remain stable over a period of time before and after a birth—although activities may not—we can reason that the changes in activities result from temporary adjustment to the realities of childcare rather than from permanent changes in roles, say, from full-time worker to homemaker.

Finally, although our main focus is on how parenthood affects educational and labor force activities, we also examine the available data on community and political participation. Below we provide an overview of the research questions addressed in this report. These questions are presented in much more detail in the analytic chapters.

- *How does parenthood affect the educational careers of young adults?*

Considerable recent research has assessed the relationship between *teenage* childbearing and women's educational attainment (Waite and Moore, 1978; Hofferth and Moore, 1979; Rindfuss, Bumpass, and St. John, 1980). These studies find that young women who become mothers as teenagers complete less schooling than those who delay parenthood. Hofferth and Moore (1979) find that an early first birth limits schooling among young women who have a first birth before age 19, but that among those who wait until at least 19 to become mothers, the causal direction seems to be reversed—educational attainment affects age at first birth. Haggstrom et al. (1981) find that both young men and young women who become parents during their late teens lag behind nonparents in educational aspirations and educational attainment, even before the first birth. Those adolescents who later become teenage parents have lower academic ability, achievement, and aspirations than their classmates. After these preexisting differences are taken into account, the effects associated with early parenthood appear to be quite small, and barely distinguishable from the effects of early marriage.

The research presented here builds on this earlier work by examining the effects of parenthood on school enrollment, educational progress, and other measures of education described above. The effect of marriage on educational attainment, defined as years of schooling eventually completed, appears to depend on sex. Voss (1975) reports that early marriage inspires the further education of men and impedes that of women. Microeconomic theory would suggest that couples consciously decide to invest more in the education of the husband than the wife on the assumptions that (1) he will act as primary earner, and (2) he will receive higher wage returns to schooling than the wife would (Becker, 1981). But we hypothesize that the arrival of children reduces couples' propensity to invest in the skills of adult family members and increases their propensity to consume goods and devote more time to the new family member. For those who have not finished school, we expect that parenthood will impede the educational progress of both father and mother, but for different reasons: Fathers will turn more of their time away from (full-time) schooling toward financial support for the family, whereas mothers will turn from schooling toward childcare and homemaking.

- *How does parenthood affect time allocated to employment by men and women?*

Most studies of the effects of parenthood on women's paid employment suffer from a multitude of shortcomings. First, most compare labor force participation between different individuals at the same point in time (Waite, 1980; Sweet, 1973; Cain, 1966), instead of comparing the activities of the same person before and after a birth. Several recent studies that are not subject to this limitation suggest that a birth decreases a woman's labor force activity in the short run (Hout, 1978; Cramer, 1979a, 1980; Shapiro and Mott, 1979). Shapiro and Mott (1979) point out that the traditional pattern of extensive interruption of labor force activity with childbirth has eroded substantially among younger women, especially blacks. But this longitudinal research has examined only one or two measures of labor force behavior, often merely participation itself. We analyze labor force behavior as indexed by participation, full-time/part-time work, hours at work, multiple job holding, various job characteristics, and career expectations. As with educational progress, we expect parenthood to shift women toward traditional roles, but this analysis considers the various mechanisms through which this shift might occur. First and most obviously, new mothers may leave the labor force and devote all of their time to the home. They may also shift to part-time work, to jobs closer to home, or to jobs whose flexible hours or other characteristics make it easier to combine work with childrearing.

This analysis will compare the changes in employment or plans for employment accompanying parenthood with those accompanying marriage, and those occurring with married versus unwed parenthood for women. We expect that much of the change associated with marriage and married parenthood will occur at marriage. For example, Haggstrom et al. (1981) found that women's educational attainment appeared to be more strongly affected by early marriage than by an early first birth. However, disentangling the effects of marriage and parenthood is difficult at best. For example, reductions in women's educational goals at about the time of marriage might result from the changes that young adults undergo *in anticipation of* parenthood, anticipations that become particularly salient with marriage. Alternatively, they might result from changes in opportunities, resources, values, and goals that occur with the transformation in the decisionmaking unit at marriage from an individual to a couple. Thus, we would expect unmarried mothers to show a much smaller shift toward traditional sex roles than do married mothers (or even married nonmothers) because they must provide their own financial support as well as take responsibility for childcare.

Although a number of researchers have documented the changes in women's market activity accompanying a birth, only Cramer (1979b) has so far examined men's employment responses to childbirth in a longitudinal setting. He studied the behavior of married men with at least one child who had an additional child during a particular three-year period, comparing their behavior with that of otherwise similar men who did not. He found that men who had an additional child during the period increased their hours of work, whereas those who did not have an additional child decreased theirs. Our analysis explores how first-time fathers respond in terms of hours and weeks of work, overtime, work orientation, and career expectations. We expect the first birth to push men toward immediate entrance into traditional roles, and where several of these roles conflict—for example, schooling and employment—we expect the breadwinner role to predominate. We explore the extent to which these changes take place with marriage as well as married parenthood.

- *How does parenthood affect the jobs and career patterns of women and men?*

At least one researcher has hypothesized that women who expect to spend a large proportion of their lives working at home therefore choose occupations that do not penalize incumbents for time out of the labor force. Polachek (1975, 1979) suggests that these choices are conscious and rational, and that these women knowingly trade relatively flat wage profiles for the freedom to move into and out of the labor force with the needs of their families. (See also Doescher, 1980.) Because women generally take primary responsibility for childcare—either doing it themselves or arranging for it—parenthood may constrain the types of jobs compatible with such responsibility. Mothers probably have less freedom to work long hours or overtime, less freedom to travel, and less flexibility in scheduling of work than other women or men (Angrist et al., 1976). These constraints may affect the types of occupations selected by mothers (or future mothers who anticipate combining work with childrearing), their occupational status, the content of their jobs, their job satisfaction, opportunities for advancement, satisfaction with career progress, and supervisory responsibility. This research examines how the birth of a child affects most of these aspects of jobs and careers. As with other activities, we examine not only the changes that occur with parenthood but also those that are associated with marriage, and we examine outcomes for both unmarried and married mothers.

Married parenthood may also affect men's career patterns, because fathers have a more powerful incentive to maximize current income than childless husbands do. They may even forgo training opportunities or jobs with low starting salaries but good long-run earnings prospects to increase current earnings.

- *How does parenthood affect the economic well-being of young adults?*

Several studies have examined the effect of children on families' financial well-being. Smith and Ward (1980) report that the effects are complex; young children depress savings for young families but increase savings in marriages of over five years' duration. Children depress savings principally through their mothers' withdrawal from the labor force. Consumption declines with the birth of a child, but not enough, on average, to make up for the loss of the wife's earnings. Smith and Ward also report that in families with a full-time homemaker, the birth of a child may result in increased savings. Cramer (1979b) finds that the birth of another child in a family with at least one child raises the husband's earnings, mainly through increased hours at his usual job. Cramer also finds that earnings of the wife tend to fall with a birth. Hofferth (1981) finds that the number of children born appears to have short-term and temporary effect on the economic well-being of couples, but not long-term or permanent effects. Living standards are lower for couples with children in the home, but these differences quickly disappear as the children begin to leave home. She finds no difference in income or living standards among the elderly by number of children ever born.

A number of researchers have examined the relationship between economic well-being and timing of the first birth. Hofferth and Moore (1979) report that becoming a parent at a young age reduces later income both through its effects on education and its effect on the earnings of other family members, usually the husband. Because women who begin childbearing early tend to have more children, and to have them more closely spaced than other women (Trussell and Menken 1978), income must be divided among more family members. Women who have their first child while they are teenagers are also more likely to experience marital disruption or unwed parenthood (Moore and Waite, 1981). As a result, early childbearers are more often poor. Our research examines the effect of a first birth on earnings of men and women, family income, asset accumulation, and residential and welfare dependency.

We expect that those who delay parenthood will eventually be financiallly better off than those who do not. However, differences in life-cycle stage complicate our analysis and the conclusions we can draw from it. Those without children by the end of the period covered by our data will have higher rates of school enrollment, because many will have delayed marriage or parenthood or both until they complete their education. However, those who begin full-time employment immediately after high school may have higher earnings, more assets, and less indebtedness than those who go on to college and postgraduate training, incurring debts and postponing earnings in the meantime. Earning profiles over the life course tend to differ substantially for men in blue-collar and in white-collar occupations, and men entering these various types of occupations tend to exhibit very different patterns of family formation (Oppenheimer, 1982). Our analysis must take account of all these factors.

- *How does parenthood affect community and political participation?*

A first birth creates potential ties between parents and numerous voluntary organizations (e.g., PTAs, youth organizations, sports and recreation clubs) but also creates new obligations that constrain extrafamilial activity (Wilensky, 1966). For these reasons, we would expect that parenthood alters both the extent and type of participation in such activities. Previous research indicates that membership in voluntary organizations varies over the life cycle (Knoke and Thompson, 1977). The number of voluntary organizations drops off with marriage, remains roughly level during the years before children enter school, and rises thereafter until the approach of the retirement years. There is some evidence that the presence of young children depresses the extent of women's participation in voluntary associations (Harry, 1970), but this does not appear to hold for memberships per se (Knoke and Thompson, 1977). We also examine whether parenthood affects political involvement and participation. This includes self-reported registration and voting, as well as a measure summarizing other types of political activity, such as making financial contributions to an election campaign or attending political rallies.

In each of these analyses, we consider factors that may influence the effect of parenthood on the outcomes discussed above. We estimate all models separately by sex, as we expect males and females to react differently to parenthood. By considering only first births, we implicitly control for parity and childspacing. The methodology also permits us to make separate estimates of the effects of parenthood for married and unwed parents. We present descriptive results for both groups, as well as for those who married and became parents at various ages. For married parents, we also compare the time series of actual outcomes with estimates of what these outcomes would have been in the absence of parenthood. Differences between changes in actual and estimated expected outcomes provide evidence of parenthood effects. The procedures used to estimate what parents' outcomes would have been if they had not become parents take into account other characteristics of parents that distinguish them from nonparents.

# Chapter 3

# DATA AND METHODOLOGY

## NLS DATABASE

The NLS provides a comprehensive database for studying the educational, vocational, and personal development of high school graduates as they pass through the critical years of early adulthood. The survey began in the spring of 1972 when 19,001 seniors from 1,061 high schools were asked to complete lengthy questionnaires and take a 69-minute test battery measuring both verbal and nonverbal abilities. The participating schools were also asked to provide further information about the seniors from their student record files. Later, four follow-up surveys were administered in the fall of 1973, 1974, 1976, and 1979 to over 23,000 members of the same graduating class, including most of the seniors who were in the base year sample.

This study is based on a voluminous file of information on 22,652 members of the Class of 1972 for whom data were available from one or more of the surveys.[1] The file contains over 3,500 data elements for each participant, most of which are derived from items on the five survey questionnaires. In addition to providing data about postsecondary educational patterns, family formation, labor market participation, and economic characteristics, the file contains numerous items pertaining to the participants' plans, aspirations, and attitudes. Even though all the questionnaires ran 28 pages or longer, response rates for the five surveys ranged from 79 to 92 percent, providing a remarkably complete source of detailed information on the lives of the NLS participants.

For most respondents, the NLS provides information that allows us to pinpoint quite accurately the date of marriage and timing of first birth. Information on marital status was gathered on all four follow-up surveys, and married respondents were asked their dates of marriage. In the pre-1979 follow-up surveys, participants were also asked how many children they had as of the first week of October in the year the survey was taken. The 1979 follow-up elicited the exact birthdates of all the respondent's children, both natural and adopted. Thus, the timing of first birth can be determined exactly for respondents to the 1979 survey, and estimated for most other respondents.

Several features of the NLS influenced our choice of methodology and also imposed qualifications on our conclusions. Among the strengths of the NLS are:

- *Large sample size*: The NLS sample contains 8,031 respondents (4,663 women and 3,368 men) who were parents by October 1979. These sample sizes are large enough to support very detailed analyses.

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[1] For documentation of the NLS data, see Riccobono et al. (1981).

- *Timeliness*: The NLS data document entry into parenthood during the 1970s, not some indefinite earlier period, as is often the case with retrospective data.
- *Availability of comparison groups*: It is possible to compare, for example, parents with nonparents, persons who became parents at younger vs. older ages, and married parents with married nonparents.
- *Richness of background data*: The NLS furnishes a broad range of individual and family characteristics that are needed to distinguish the effects of parenthood from those of background characteristics that may predispose some people to become parents early in life.
- *Information on postsecondary activities and attitudes*: NLS data on the respondents' aspirations, expectations, and attitudes enable us to delve more deeply into the factors that affect the behavior and choices during the critical years of early adulthood.

Offsetting these strengths are the following limitations:

- *Exclusion of high school dropouts*: The NLS sample includes only those adolescents who were still in high school in the spring of their senior years. Many of the excluded dropouts undoubtedly had become parents.
- *Missing values*: Despite high response rates on each survey wave, only 77 percent of all 22,652 participants responded to all four follow-up surveys, and many respondents did not fully complete their questionnaires.
- *Time period covered*: At the time of the fourth follow-up, most NLS participants were about 25 years old. Thus, the data cover only the early years of adulthood; they provide little or no information about long-term sequelae or the consequences of becoming a first-time parent at later ages. Nor are they well suited for studying the effects of a second birth.
- *Mixing of age and period effects*: The NLS data are subject to the interpretational problems that are inevitable in the analysis of a single cohort, such as the difficulty of distinguishing the effects of maturation from secular change.

## THE FIVE WAVES OF THE NLS

Figure 3.1 shows the approximate timing of the five waves of the NLS. The questionnaires for the follow-up surveys were mailed in October 1973, 1974, 1976, and 1979. Although efforts were made to increase response rates through April or May of the following year, the respondents were instructed to report

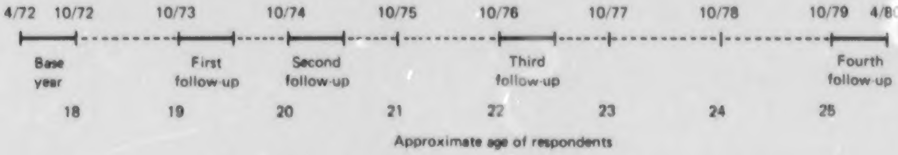

Fig. 3.1—Timing of NLS surveys

their current statuses as of the first week of October. Hence, the follow-up surveys can be treated as though all respondents were surveyed in early October.

Figure 3.1 also shows the approximate age of the respondents as of each survey. There is little variation in age among the NLS respondents: 73 percent were born in 1954, 20 percent in 1953, 4 percent before 1953, and 3 percent after 1954. Most respondents, then, were either 17 or 18 at the time of the base year survey and turning 25 about the time of the fourth follow-up.

The composition of the NLS sample changed between successive waves of the survey. The initial sample design called for first selecting a national probability sample of 1,200 schools and then choosing 18 seniors at random from each school. The schools were selected by stratified sampling using strata determined by (1) type of control (public or private), (2) geographic region, (3) size of senior class, (4) proximity to institutions of higher education, (5) percentage minority group enrollment, (6) income level of the community, and (7) degree of urbanization. Schools located in low-income areas and schools with high proportions of minority students were oversampled at approximately twice the sampling rate used for the remaining schools.

Of the 1,200 schools that were selected initially, 21 had no seniors and 231 others either refused to participate or could not participate because the request was received too late in the year. The remaining 948 schools in the initial sample were later augmented by 113 backup schools that were similar in composition to the nonparticipating schools. Of the 19,001 seniors selected from these 1,061 schools, 16,683 completed the Base Year Questionnaire in the spring of 1972. At about the same time, the participating schools were asked to administer a battery of tests to the seniors in the sample and fill out forms providing information from student records.

The base year sample was further augmented in the four follow-up surveys to include 1,300 schools on the first follow-up survey and 1,318 on the second through fourth follow-ups, bringing the total number of seniors in the NLS sample to 23,451. This study is based on a data file containing information on 22,652 "participants" in the NLS, i.e., those seniors in the NLS sample who either were respondents to one of the five questionnaires or were individuals for whom test battery scores or information forms were provided by their schools.[2]

## COMPLETION AND RESPONSE RATES

Although only 12,980 (55 percent) of the participants responded to all five waves, the completion and response rates for the individual surveys were surprisingly high considering the lengths of the questionnaires. The sample sizes and numbers of respondents to each of the five waves were as follows:

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[2] There were 43 NLS participants whose gender could not be ascertained from the survey results. Excluding those cases throughout the study reduced our sample size to 22,609.

| Survey | Number in Sample | Number of Respondents | Completion Rate |
|---|---|---|---|
| Base year | 19,001 | 16,683 | 87.8% |
| First follow-up | 23,122 | 21,350 | 92.3 |
| Second follow-up | 23,451 | 20,872 | 89.0 |
| Third follow-up | 23,451 | 20,092 | 85.7 |
| Fourth follow-up | 23,451 | 18,630 | 79.4 |

These completion rates are based upon the total number of individuals in the NLS sample, not the number of potential respondents who received questionnaires. Many members of the initial sample were dropped from the follow-up mailing lists because of prior refusals, reported deaths, and other reasons. As a result of this natural attrition in active NLS participants over time, the fourth follow-up questionnaire was mailed to only 20,862. Thus, the 18,630 respondents to the fourth follow-up survey accounted for 89 percent of the mailouts. The corresponding response rates for the first, second, and third follow-ups were 94, 93, and 92 percent, respectively.

These remarkably high response rates, achieved in part through the use of telephone follow-up to elicit partial responses to key questions, overstate the completeness of responses to individual items of relevance to this study. For example, among the 21,350 respondents to the first follow-up survey, 2,375 (11 percent) did not respond to the question, "What was your marital status as of the first week of October 1973?" The frequency of missing (and sometimes inconsistent) responses to questions about marital and parenthood status raised problems in pinpointing the timing of family formation, as discussed in Chap. 4.

## OUTCOME MEASURES

The main purpose of this study is to determine how entry into parenthood affects the activities of young adults. The outcome measures to be analyzed in this study can be grouped into the following areas:

- Labor force participation
- Job characteristics
- Career expectations
- Educational activities
- Marital disruption
- Social and political participation
- Financial well-being
- Attitudes

The complete list of outcome measures is given in Table 3.1.

For example, one of our outcomes is a measure of educational expectations, derived from the response to the following question on the first follow-up survey (also included in subsequent waves): "As things stand now, how far in

## Table 3.1

### OUTCOME MEASURES

| Category and Measure |
|---|
| *Labor Force Participation* |
| Employment status [1] |
| Full-time employment [1] |
| Hours worked per week |
| Worked 48 hours or more per week [1] |
| Weeks worked in previous year |
| Number of employers in previous year |
| *Job Characteristics* |
| Duncan SEI score for primary occupation |
| Hourly wage rate for primary occupation |
| Total weekly earnings |
| Supervisory position [1] |
| Number of employees supervised |
| Job independence |
| Miles travelled to work |
| Homemaker status [1] |
| Homemaker as primary activity [1] |
| *Career Expectations* |
| Career expectation index |
| Expect professional career [1] |
| Expect to be a homemaker [1] |
| *Educational Activities* |
| Student status [1] |
| Full-time enrollment [1] |
| Enrolled in degree credit program [1] |
| Hours per week in educational activities |
| Years of schooling completed |
| Years of school expected |
| *Marital Disruption* |
| Divorced or separated [1] |
| *Social and Political Participation* |
| Number of organizational memberships |
| Number of active memberships |
| Voter registration status [1] |
| Voted since date of last survey [1] |
| Political activity composite score |
| *Financial Well-Being* |
| Total family income |
| Received public assistance or welfare [1] |
| Living with parents or relatives [1] |
| Homeowner status [1] |
| Market value of home |
| *Attitudes* |
| Self-esteem |
| Locus of control |
| Orientation toward work |
| Job satisfaction |
| Work satisfaction |

NOTE: [1] = Indicator variable having the value one (or zero) if the condition applies (or does not apply).

school do you think you actually will get?" The possible responses are listed below, with the coding indicated in parentheses.

- High school only (12)
- Vocational, trade, or business school
  - Less than two years (13)
  - Two years or more (14)
- College program
  - Some college (including two-year degree) (14)
  - Finish college (four- or five-year degree) (16)
  - Master's degree or equivalent (18)
  - Ph.D., M.D., or equivalent (20)

For the most part, the outcomes were measured on all five waves of the survey, enabling us (where appropriate) to use the base year measure as a prescore against which the later measures could be compared. However, one must exercise care in making such comparisons because of changes over time in both the order and the wording of questionnaire items (especially between the base year and first follow-up surveys).

## METHODOLOGY FOR ASSESSING EFFECTS OF PARENTHOOD

Our primary objective is to explore how becoming a parent affects young people's participation in various activities, including paid employment, education, and community participation. To do this, we must develop a working definition of the "effects of parenthood." At a conceptual level, this is relatively easy to do. By "the effects of parenthood" we mean the ways in which an individual's life is changed as a result of bearing and raising children. Unfortunately, arriving at an operational definition is not so easy, for several reasons. First, the effects of parenthood are not the same for everyone, but vary from person to person as a result of many factors, some of which are not measurable. For example, some women who have babies while enrolled in college stop attending classes for only a few days after their child is born, whereas others with seemingly similar characteristics leave school for an extended period, and still others permanently alter their long-term educational plans. Second, both the decision to become a parent and the experience of parenthood occur not in isolation, but in a rich context of other decisions and experiences, many of which can have profound effects of their own. Distinguishing the effects of parenthood from changes that result from these "extraneous" factors is extremely difficult. Finally, there is no guarantee that the effects of parenthood will manifest themselves only at certain times—e.g., immediately after the birth of a child. Indeed, many important behavioral changes associated with parenthood may occur before, not after, the child is born. Such changes may occur at marriage or at any other time that prospective parents make plans that anticipate their later role as parents.

The complexity of studying parenthood as an independent variable is compounded by the absence of a clearly bounded set of relevant outcome variables. Parenthood can affect people's lives in many different ways. Those that we consider here mostly concern the way in which parents allocate time and energy across a range of activities, including schooling and work inside and outside the home. However, even within the limited domain we are considering, the range of possible effects is quite large. For that reason, we believe it is important to explore multiple measures of activities covering several different dimensions.

The problems outlined above have influenced our thinking about how to define and measure the effects of parenthood. One of our main concerns has been to distinguish the effects of parenthood from the individual differences that led some people to become parents in the first place. The NLS respondents who became parents while still teenagers, for example, tended to rank much lower than their classmates in ability, scholastic performance, and socioeconomic status. Few of them planned to enter college, and still fewer actually did. As a group, they were destined to have lower educational achievement whether or not they became parents. The relevant analytic question is how much of their lower educational achievement can be attributed to parenthood.

A second major concern is to distinguish the consequences of parenthood from those that are associated with marriage or that stem from other postsecondary experiences. Among young parents, the marriage date is often closely linked to the date of pregnancy, making it difficult to ascertain whether observed changes over time in activities are due to parenthood or to other factors associated with marriage.

Fortunately, the large sample size of the NLS enables us to categorize respondents into relatively homogeneous groups by sex, marriage date, and timing of first birth, and still have a large number of cases within each group. The effects of parenthood can then be inferred by comparing the group means over time and across groups, adjusting for differences across the groups in background factors and postsecondary experiences that are correlated with the outcome measures.

Our working definition of parenthood effects centers on how parents' outcomes change over time in comparison with how one would expect them to have changed in the absence of parenthood. Thus, assessing whether parenthood effects have occurred requires that we compare outcome measures over time and across groups; neither comparison by itself provides sufficient evidence to justify a conclusion concerning parenthood effects. If we find a difference between parents and nonparents in a cross-sectional comparison, we must know when that difference first appeared before we can tell whether it is more apt to reflect preexisting differences or a true parenthood effect. Similarly, if we find that the parents' outcome measures change systematically over time in apparent association with the timing of parenthood, we must know whether the outcomes of nonparents (especially married nonparents) display similar changes. If they do, the changes may be due to factors other than parenthood. Thus, to infer parenthood effects we must have a time series of relevant outcome measures for parents and comparable nonparents. To ensure that these groups will be as comparable as possible, we should also have a comprehensive set of baseline characteristics. Fortunately, the NLS provides both.

In this study, we use an individual effects methodology similar to that used by Haggstrom et al. (1981). Its basic premise is that the effects of parenthood on the activities of a particular individual can be estimated by comparing changes over time in the individual's activity measures with estimates of the expected changes for that individual in the absence of parenthood. In this study, the expected changes are estimated using regression equations fitted to observations on the married NLS participants who remained childless through October 1979 (or October 1976 if they did not respond to the 1979 survey). Appendix A provides a detailed discussion of the rationale behind the individual effects methodology, as well as a description of the analysis of covariance model that was used to carry out this procedure.

While this methodology could conceivably be applied to estimate the *individual* effects of parenthood for each parent in the NLS, we have restricted our attention to the *average* effects for certain categories of parents. The estimated average effects across individuals, which vary over time, have been calculated for each month from the twelfth month before the birthdate of the first child through two years after the birthdate. The average effects will be implicitly depicted in this study using graphs showing smoothed time series of the actual means of the outcome measures for the parents, along with analogous time series showing the predicted means in the absence of parenthood, which are derived using the regression equation fitted to observations on married nonparents. (See App. A for the statistical basis of this procedure and the exact formulas that were used in the calculations.)

## PREDICTING OUTCOMES IN THE ABSENCE OF PARENTHOOD

To estimate the predicted means for parents if they remained childless, we used fitted values from a regression equation applied to observations on 2,807 women and 2,477 men in the NLS who were ever-married nonparents in 1979 (or, if they did not complete a survey that year, were ever-married nonparents in 1976). Inasmuch as the dataset contained as many as 8 observations (one for each year) on each respondent on each variable, we had a large number of observations for estimating time paths.

The regression equations used to derive predicted means incorporated a variety of background characteristics (high school measures, race/ethnicity, and family background) as well as year of observation and marital status, duration of marriage, and educational attainment. The last three characteristics reflect the respondent's status at the time of observation (and thus may take on different values for the same respondent at different points in time). The characteristics incorporated in our equations are listed in Table 3.2.

Our study involves estimating time paths and parenthood effects for an extraordinarily wide range of outcomes. Ideally, we would like to incorporate a different set of characteristics into the regression equation for each outcome, recognizing that different outcomes have different antecedents. Given the large number of outcomes examined, however, such customization was infeasible. Instead, we selected as our independent variables a set of characteristics that appeared appropriate in predicting a wide range of outcomes, including most or all of those selected as dependent variables. We avoided customizing this list except when there was a compelling reason to do so—as occasionally there was. For example, we omitted current marital status and duration of marriage from the regression equation used to fit predicted means for marital disruption. Fitted equations for all outcome variables are provided in App. B.

## Table 3.2

### CHARACTERISTICS INCORPORATED IN REGRESSION EQUATIONS FOR EVER-MARRIED NONPARENTS

| Characteristic |
|---|
| *High School Measures* |
| Ability composite score |
| Percentile rank in class |
| Academic program [1] |
| Vocational program [1] |
| General program [2] |
| *Race/Ethnicity* |
| Black, Afro-American, or Negro [1] |
| Mexican-American, Chicano, Puerto Rican or other Latin American origin [1] |
| Other [2] |
| *Family Background* |
| Parents' education |
| Father's occupation |
| Logarithm of family income |
| *Region* |
| Northeast [1] |
| South [1] |
| West [1] |
| North Central [2] |
| *Marital Status* |
| Single [2] |
| Married [1] |
| Divorced, separated or widowed [1] |
| Years since first marriage |
| *Postsecondary Education* |
| None [2] |
| Less than two year [1] |
| Two or more years, no BA [1] |
| College graduate [1] |
| *Year of Observation* [3] |

NOTES:
[1] = Indicator variable having the value one (or zero) if the condition applies (or does not apply).
[2] = Omitted category for which no indicator variable was defined.
[3] = Set of indicator variables for the years 1972 through 1979.

# Chapter 4

# PROFILE OF PARENTS IN THE CLASS OF 1972

This chapter describes the timing of marriage and parenthood among members of the High School Class of 1972, and how this timing varied by respondents' characteristics.

## DETERMINATION OF MARITAL AND PARENTHOOD STATUS

Although the base year NLS survey did not collect information on marital and parenthood status, the follow-up surveys provided information on the current marital and parenthood status of all respondents. In addition, the 1979 follow-up obtained detailed information on the number and birthdates of each respondent's children, if any, both natural and adopted. Each follow-up survey elicited the date of the respondent's (most recent) marriage. In all follow-up surveys prior to 1979, respondents were asked how many children they had as of the first week of October in the year in which the survey was taken. Accordingly, for respondents to the 1979 follow-up, we are able to determine the date of the first birth exactly; for those who responded only through 1976, we must estimate this date from changes over time in the answers to questions on numbers of children.

Although response rates on each of the follow-up surveys were very high, only 77 percent of the NLS participants responded to all four follow-up surveys, and some answered only a few questions. In addition, individuals did not always give answers that were consistent within and across interviews. For example, the marriage date sometimes conflicted with the marital status reported in earlier years, some respondents gave different marriage dates in different survey years, and some respondents who reported having children at one time later reported being childless. Although these inconsistencies are probably no more prevalent in the NLS than in other panel studies that use long questionnaires to elicit detailed personal information, they nonetheless pose problems in establishing the actual timing of family formation for some of its participants.

Because our methodology for assessing the consequences of parenthood for the activities of young adults depends heavily on our ability to date the birth of the first child, we devised a procedure for combining the many relevant items on the five surveys to determine marital and parenthood status as of October of each year from 1972 to 1979. For the most part, this procedure used the responses to the questions on marital status, date of marriage, the number of children reported at each follow-up survey, and their birthdates. Missing values on marital status were estimated (wherever possible) from marriage dates reported on a later survey or from later "never married" responses. Inconsistent and highly improbable birthdates (for example, births prior to age 14 or births one to eight months apart) were eliminated. Timing of first birth was determined from valid birthdates and from numbers of children reported at each survey, except for the adoptive parents. For them, the timing of parenthood could not be ascertained, because the date at which they acquired the child was not available. In general, parenthood status was classified unknown in cases involving impossible or unlikely birthdates, inconsistent reporting, or conflicting information provided by the respondent.

Table 4.1 presents the number of NLS participants by sex and by timing of marriage and first birth. Note that parenthood status as of October 1979 was unknown for approximately 15 percent of the females and 19 percent of the males. In the majority of these cases, the individuals failed to respond to the 1979 follow-up survey, so that both marital and parenthood status as of that year are unknown, but for the most part their statuses in previous years were known.

As of October 1979, most members of the Class of 1972 were about 25 years of age. By that time, most who would ever finish college had already done so. Although some were pursuing advanced studies, most had entered the labor force, either temporarily or permanently. As the table shows, many had also initiated the process of family formation by marrying, becoming parents, or both.

The NLS is not a representative sample from the Class of 1972. Schools in low-income areas and schools with high proportions of minority students were sampled at approximately twice the sampling rate used for other schools. Accordingly, the proportions of NLS participants in various cells in Table 4.1 provide biased estimates of the corresponding national proportions. However, estimates of the national proportions can be obtained by weighting the individuals in the NLS proportional to the reciprocals of their sample inclusion probabilities and allocating persons with unknown statuses to other cells using proportions derived from the other cell frequencies.[1] Table 4.2 provides the corresponding national estimates of the cell frequencies (based on marital and parenthood status as of October 1979) for the estimated 3,043,600 seniors in the Class of 1972. According to these estimates, approximately 38 percent of the females had borne a first child while married, 6 percent became unwed parents, and 1 percent had become parents by adopting a child; the comparable figures for males are 27 percent married parents, 4 percent unwed parents, and 2 percent adoptive parents. Two-thirds of the males and 56 percent of the females were still not parents as of October 1979, when the typical member of the Class of 1972 reached age 25. These figures match those for females from the Current Population Survey. The recent report on childspacing (U.S. Bureau of the Census, 1984:20) shows that women in the birth cohort 1950–54 had 636 first births per 1,000 women by age 25 for high school graduates, and 301 first births per 1,000 women for those with one year of college or more. Since all the NLS participants completed at least a high school degree, and about 60 percent completed some college, application of these national rates to the female NLS sample implies that about 44 percent had a first birth by age 25, exactly what our results show. Unfortunately, very little information on age at first birth is available for males.

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[1] See Levinsohn et al. (1978) for a detailed description of the sampling procedure and derivation of sampling probabilities. Various sets of weights are provided on the NLS file to allow for nonresponse rates in the five waves. The weights W28 were chosen for this study.

## Table 4.1

## NUMBER OF NLS PARTICIPANTS BY MARITAL AND PARENTHOOD STATUS, OCTOBER 1979

| Parenthood Status and Timing of First Birth | Total | Marital Status | | | Timing of First Marriage | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Single | Ever Married | Unknown | Before 10/72 | 10/72- 9/74 | 10/74- 9/76 | 10/76- 9/79 | Unknown |
| | | | | FEMALES | | | | | |
| Nonparents | 5044 | 2551 | 2492 | 1 | 123 | 568 | 733 | 1066 | 2 |
| Married Parents | 3787 | 0 | 3787 | 0 | 952 | 1700 | 810 | 312 | 13 |
| 10/76 - 9/79 | 1435 | 0 | 1435 | 0 | 110 | 449 | 557 | 312 | 7 |
| 10/74 - 9/76 | 1075 | 0 | 1075 | 0 | 173 | 651 | 251 | 0 | 0 |
| 10/73 - 9/74 | 597 | 0 | 597 | 0 | 184 | 413 | 0 | 0 | 0 |
| 10/72 - 9/73 | 500 | 0 | 500 | 0 | 339 | 159 | 0 | 0 | 2 |
| Before 10/72 | 127 | 0 | 127 | 0 | 126 | 1 | 0 | 0 | 0 |
| Date Unknown | 53 | 0 | 53 | 0 | 20 | 27 | 2 | 0 | 4 |
| Unwed Parents | 795 | 370 | 343 | 82 | 25 | 102 | 93 | 122 | 1 |
| 10/76 - 9/79 | 125 | 101 | 24 | 0 | 0 | 0 | 0 | 24 | 0 |
| 10/74 - 9/76 | 177 | 96 | 56 | 25 | 0 | 0 | 15 | 41 | 0 |
| 10/73 - 9/74 | 143 | 62 | 57 | 24 | 0 | 10 | 26 | 21 | 0 |
| 10/72 - 9/73 | 204 | 62 | 109 | 33 | 0 | 50 | 39 | 19 | 1 |
| Before 10/72 | 146 | 49 | 97 | 0 | 25 | 42 | 13 | 17 | 0 |
| Adoptive Parents | 81 | 2 | 79 | 0 | 9 | 26 | 21 | 22 | 1 |
| Unknown | 1680 | 3 | 524 | 1153 | 71 | 244 | 139 | 60 | 10 |
| Total | 11387 | 2926 | 7225 | 1236 | 1180 | 2640 | 1796 | 1582 | 27 |
| | | | | MALES | | | | | |
| Nonparents | 5758 | 3550 | 2204 | 4 | 23 | 294 | 638 | 1247 | 2 |
| Married Parents | 2713 | 0 | 2713 | 0 | 259 | 1187 | 874 | 383 | 10 |
| 10/76 - 9/79 | 1282 | 0 | 1282 | 0 | 18 | 315 | 562 | 383 | 4 |
| 10/74 - 9/76 | 779 | 0 | 779 | 0 | 25 | 448 | 305 | 0 | 1 |
| 10/73 - 9/74 | 308 | 0 | 308 | 0 | 47 | 261 | 0 | 0 | 0 |
| 10/72 - 9/73 | 235 | 0 | 235 | 0 | 107 | 128 | 0 | 0 | 2 |
| Before 10/72 | 52 | 0 | 52 | 0 | 51 | 1 | 0 | 0 | 0 |
| Date Unknown | 57 | 0 | 57 | 0 | 11 | 34 | 7 | 0 | 5 |
| Unwed Parents | 467 | 201 | 198 | 68 | 12 | 55 | 47 | 84 | 0 |
| 10/76 - 9/79 | 106 | 75 | 31 | 0 | 0 | 0 | 0 | 31 | 0 |
| 10/74 - 9/76 | 144 | 71 | 42 | 31 | 0 | 0 | 15 | 27 | 0 |
| 10/73 - 9/74 | 81 | 25 | 35 | 21 | 0 | 8 | 11 | 16 | 0 |
| 10/72 - 9/73 | 89 | 19 | 54 | 16 | 0 | 31 | 15 | 8 | 0 |
| Before 10/72 | 47 | 11 | 36 | 0 | 12 | 16 | 6 | 2 | 0 |
| Adoptive Parents | 188 | 9 | 179 | 0 | 12 | 36 | 47 | 81 | 3 |
| Unknown | 2096 | 1 | 431 | 1664 | 19 | 167 | 157 | 83 | 5 |
| Total | 11222 | 3761 | 5725 | 1736 | 325 | 1739 | 1763 | 1878 | 20 |

## Table 4.2

## ESTIMATED COUNTS FOR THE CLASS OF 1972 BY MARITAL AND PARENTHOOD STATUS, OCTOBER 1979

(In thousands)

| Parenthood Status and Timing of First Birth | Total | Marital Status | | Timing of First Marriage | | | |
|---|---|---|---|---|---|---|---|
| | | Single | Ever Married | Before 10/72 | 10/72-9/74 | 10/74-9/76 | 10/76-9/79 |
| | | | **FEMALES** | | | | |
| Nonparents | 843.9 | 414.2 | 429.7 | 17.5 | 101.9 | 125.2 | 185.2 |
| Married Parents | 569.8 | 0.0 | 569.8 | 129.9 | 251.2 | 135.6 | 53.0 |
| 10/76 - 9/79 | 238.9 | 0.0 | 238.9 | 15.4 | 73.3 | 97.1 | 53.0 |
| 10/74 - 9/76 | 158.8 | 0.0 | 158.8 | 23.3 | 97.0 | 38.5 | 0.0 |
| 10/73 - 9/74 | 84.0 | 0.0 | 84.0 | 25.2 | 58.8 | 0.0 | 0.0 |
| 10/72 - 9/73 | 70.2 | 0.0 | 70.2 | 48.2 | 22.1 | 0.0 | 0.0 |
| Before 10/72 | 17.9 | 0.0 | 17.9 | 17.8 | 0.1 | 0.0 | 0.0 |
| Unwed Parents | 93.8 | 48.4 | 45.4 | 3.5 | 13.0 | 13.3 | 15.6 |
| 10/76 - 9/79 | 17.3 | 13.7 | 3.6 | 0.0 | 0.0 | 0.0 | 3.6 |
| 10/74 - 9/76 | 21.0 | 13.4 | 7.6 | 0.0 | 0.0 | 2.0 | 5.6 |
| 10/73 - 9/74 | 14.9 | 7.6 | 7.3 | 0.0 | 1.4 | 3.4 | 2.4 |
| 10/72 - 9/73 | 24.0 | 8.1 | 15.9 | 0.0 | 7.0 | 6.5 | 2.4 |
| Before 10/72 | 16.7 | 5.6 | 11.1 | 3.5 | 4.6 | 1.3 | 1.7 |
| Adoptive Parents | 11.2 | 0.2 | 11.0 | 1.4 | 3.5 | 3.1 | 2.9 |
| Total | 1518.6 | 462.8 | 1055.8 | 152.4 | 369.6 | 277.2 | 256.7 |
| | | | **MALES** | | | | |
| Nonparents | 1022.4 | 621.9 | 400.5 | 4.6 | 50.7 | 109.9 | 235.3 |
| Married Parents | 415.6 | 0.0 | 415.6 | 33.5 | 169.8 | 144.9 | 67.4 |
| 10/76 - 9/79 | 221.8 | 0.0 | 221.8 | 2.6 | 52.9 | 98.8 | 67.4 |
| 10/74 - 9/76 | 114.4 | 0.0 | 114.4 | 4.2 | 64.1 | 46.1 | 0.0 |
| 10/73 - 9/74 | 42.6 | 0.0 | 42.6 | 6.1 | 36.5 | 0.0 | 0.0 |
| 10/72 - 9/73 | 30.5 | 0.0 | 30.5 | 14.3 | 16.2 | 0.0 | 0.0 |
| Before 10/72 | 6.4 | 0.0 | 6.4 | 6.3 | 0.1 | 0.0 | 0.0 |
| Unwed Parents | 56.7 | 28.9 | 27.8 | 1.3 | 8.2 | 5.8 | 12.4 |
| 10/76 - 9/79 | 15.2 | 10.7 | 4.5 | 0.0 | 0.0 | 0.0 | 4.5 |
| 10/74 - 9/76 | 18.0 | 11.7 | 6.3 | 0.0 | 0.0 | 2.3 | 4.0 |
| 10/73 - 9/74 | 8.2 | 3.2 | 5.0 | 0.0 | 1.1 | 1.6 | 2.3 |
| 10/72 - 9/73 | 10.1 | 2.3 | 7.7 | 0.0 | 4.9 | 1.4 | 1.5 |
| Before 10/72 | 5.2 | 1.0 | 4.2 | 1.3 | 2.2 | 0.6 | 0.2 |
| Adoptive Parents | 30.3 | 1.8 | 28.4 | 1.4 | 5.7 | 8.0 | 13.4 |
| Total | 1525.0 | 652.7 | 872.3 | 40.8 | 234.4 | 268.6 | 328.5 |

The table also shows marked differences in the timing of parenthood for married and unmarried persons. Most first births to unmarried persons occurred before the end of high school and in the few succeeding years, declining in frequency as the cohort aged. Note that few people—either male or female—became unwed parents in the three years between October 1976 and October 1979. Married parenthood followed the opposite timing pattern, with fewer births in the early years after high school (when respondents are young) than in the later years. These differences obtain for both sexes. However, women in the Class of 1972 entered both married and unwed parenthood at higher rates than males, primarily because the average age at first marriage and first birth in the United States is currently about two years younger for females than for males.

In the analyses reported hereafter, the NLS participants whose marital or parenthood status as of October 1979 is unknown are dropped from consideration. This results in the exclusion of 2,019 cases for females (17.7 percent of the sample) and 2,389 cases (21.3 percent) for males. However, some of our year-by-year analyses do include cases with complete information through 1976 even though information is missing thereafter. Such records are, of course, deleted from analyses after 1976. We also eliminate cases for 109 females and 152 males who failed to complete high school although they were enrolled as of their senior year. This deletion of high school dropouts leaves a relatively homogeneous group for analysis.

To assess the effect of the loss of respondents from the sample by the 1979 interview, we compared those who left the sample by that year with those who remained. Sample loss was selective by background characteristics, but this selectivity appears modest. For example, retention increases generally with the education of the respondent's mother and father, but 82 percent of those with mothers with 8 years of schooling or less were respondents in 1979, compared with 88 percent of those with college graduate mothers and 80 percent of those with mothers with professional degrees. More of the never-married in the early survey years responded than of the married (98 versus 93 percent), and more of those enrolled in school full time (87 versus 82 percent), but the differences are small. This fact increases our confidence in the representativeness of the NLS sample through 1979 and in our results.

## CHARACTERISTICS OF THE NLS RESPONDENTS BY TIMING OF MARRIAGE AND PARENTHOOD

In this section, we present information on the characteristics of the NLS respondents by timing of marriage and parenthood. The characteristics included are those we found to be important in predicting the various activity measures that we examine in detail later (see App. B and Table 3.2).

Previous studies of family formation have noted large differences between racial and ethnic groups in the timing and ordering of marriage and parenthood (Michael and Tuma, 1983; Kobrin and Waite, 1984; Moore and Burt, 1982). Black males and females tend to enter parenthood at a much earlier age than whites, to marry later, and—as a result of these two differences—more often to be unmarried when their first child is born. Table 4.3 shows differences in timing of marriage and first birth by racial and ethnic groups for

## Table 4.3

### RACIAL DISTRIBUTION OF NLS PARTICIPANTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | Males | | |
|---|---|---|---|---|---|---|
| Parenthood Status | Black | Hispanic | Other Minority | Black | Hispanic | Other Minority |
| Nonparents | | | | | | |
| Single | 13.6 | 2.9 | 5.2 | 9.4 | 3.4 | 5.7 |
| Ever Married | 6.9 | 3.3 | 3.5 | 4.9 | 3.5 | 3.8 |
| Married Parents | 12.0 | 5.5 | 4.5 | 11.6 | 5.9 | 5.1 |
| After 9/76 | 9.0 | 4.9 | 4.4 | 8.8 | 5.3 | 3.9 |
| 10/74 - 9/76 | 11.2 | 5.1 | 4.4 | 11.3 | 5.7 | 6.3 |
| 10/73 - 9/74 | 13.2 | 8.1 | 5.7 | 15.7 | 5.9 | 4.6 |
| 10/72 - 9/73 | 18.0 | 5.1 | 4.2 | 18.4 | 8.5 | 5.6 |
| Before 10/72 | 20.3 | 5.7 | 0.8 | 12.2 | 4.1 | 12.2 |
| Adoptive Parents | 13.6 | 3.7 | 6.2 | 19.8 | 3.8 | 2.7 |
| Unwed Parents | 65.1 | 3.6 | 4.3 | 61.0 | 5.2 | 3.9 |
| After 9/76 | 57.3 | 1.6 | 5.6 | 45.7 | 5.7 | 5.7 |
| 10/74 - 9/76 | 59.1 | 6.3 | 5.1 | 61.3 | 6.3 | 3.5 |
| 10/73 - 9/74 | 71.6 | 2.1 | 6.4 | 76.5 | 3.7 | 3.7 |
| 10/72 - 9/73 | 66.7 | 5.4 | 2.9 | 63.2 | 5.7 | 3.4 |
| Before 10/72 | 70.4 | 0.7 | 2.1 | 63.8 | 2.1 | 2.1 |
| Timing of first marriage: | | | | | | |
| After 9/76 | | | | | | |
| Nonparents | 8.2 | 3.0 | 3.9 | 4.7 | 3.7 | 2.8 |
| Married Parents | 14.8 | 6.8 | 6.1 | 13.5 | 5.3 | 6.1 |
| 10/74 - 9/76 | | | | | | |
| Nonparents | 6.0 | 3.3 | 3.4 | 5.0 | 3.7 | 4.8 |
| Married Parents | 10.1 | 4.8 | 4.8 | 11.6 | 5.8 | 3.9 |
| 10/72 - 9/74 | | | | | | |
| Nonparents | 6.5 | 3.8 | 3.1 | 5.0 | 2.8 | 5.0 |
| Married Parents | 11.6 | 5.5 | 4.2 | 11.1 | 5.8 | 5.2 |
| Before 10/72 | | | | | | |
| Nonparents | 4.1 | 2.7 | 3.4 | 3.7 | 3.7 | 3.7 |
| Married Parents | 13.1 | 5.7 | 4.0 | 10.3 | 8.3 | 7.1 |

males and females in the NLS. This table shows that a much higher proportion of unwed parents than of married parents or nonparents are black, as is the case for the nation as a whole. This holds for both sexes and at all ages, although the proportion of unwed parents who are black is somewhat larger for early than for late unwed parents. Blacks are also overrepresented among married parents who had their first child within a few months of high school graduation; they are underrepresented among married parents who had their first birth relatively late (after 1976) and among ever-married nonparents of both sexes.

The NLS sample probably has fewer blacks than a sample of this age group as a whole because of the relatively high rates of high school dropout for blacks.

Persons of Hispanic origin constitute about 4.5 percent of the NLS sample. However, categories of nonparents—both ever-married and single—tend to contain a smaller proportion of Hispanics than the NLS sample as a whole, whereas married parents and, to a lesser extent, unwed parents contain a larger proportion. Within categories of timing of first marriage, Hispanic males and females constitute a larger proportion—often double—of the parents compared to the nonparents.

Table 4.4 shows that patterns of family formation differ across regions of the country, typically following national fertility statistics. Current Population Survey statistics indicate that teenagers in the South have higher, and those in the Northeast somewhat lower, rates of childbearing than those in other regions. Consistent with this, although 36 percent of the NLS sample grew up in the South, a substantially higher proportion of those who married and/or became parents relatively early were Southerners. For example, about half of the men and women who married within the first few years after high school grew up in the South. Among married nonparents and married persons who became parents after about 1974, those who grew up in the South are neither under- nor overrepresented. However, those who grew up in the South are underrepresented in the category of those who remained single and childless through 1979. Both males and females show these differences. Those raised in the Northeast, on the other hand, are underrepresented among early marriers and early parents, and overrepresented among the never-married. This same pattern of slightly delayed marriage and parenthood holds generally for those from the West.

Timing of marriage and parenthood depends partly on competing uses of the individual's time. Those who attend or expect to attend college and advanced degree programs tend to delay family formation relative to those who do not go on to school (Voss, 1975; Marini, 1978). This relationship does not result only from the later marriage of the college-educated; in a recent national survey of youth, Mott et al. (1983) found that the extent of sexual activity in the previous month was highest for those with low ability and decreased as measured ability increased among both males and females. Characteristics of the parental family, along with academic ability and scholastic achievement during high school, also strongly affect college-going among high school graduates (Alexander and Eckland 1974.)

Tables 4.5 and 4.6 show differences in timing of marriage and first birth among those from different family backgrounds and those with different levels

## Table 4.4

## REGIONAL DISTRIBUTION OF NLS PARTICIPANTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | Males | | | |
|---|---|---|---|---|---|---|---|---|
| Parenthood Status | North Central | North-east | South | West | North Central | North-east | South | West |
| Nonparents | | | | | | | | |
| Single | 25.6 | 27.2 | 29.7 | 17.6 | 27.5 | 24.7 | 28.9 | 18.9 |
| Ever Married | 26.1 | 22.4 | 36.2 | 15.3 | 27.9 | 19.8 | 35.7 | 16.5 |
| Married Parents | 26.3 | 16.3 | 41.2 | 16.2 | 26.6 | 13.6 | 42.6 | 17.2 |
| After 9/76 | 28.2 | 18.5 | 36.3 | 16.9 | 28.3 | 15.0 | 38.6 | 18.1 |
| 10/74 - 9/76 | 25.0 | 14.6 | 43.9 | 16.5 | 25.0 | 11.8 | 47.0 | 16.2 |
| 10/73 - 9/74 | 24.1 | 17.6 | 41.4 | 16.9 | 24.7 | 11.0 | 46.1 | 18.2 |
| 10/72 - 9/73 | 24.8 | 13.4 | 48.0 | 13.8 | 26.8 | 14.5 | 41.7 | 17.0 |
| Before 10/72 | 33.9 | 14.2 | 42.5 | 9.4 | 30.8 | 15.4 | 48.1 | 5.8 |
| Adoptive Parents | 22.2 | 13.6 | 42.0 | 22.2 | 28.2 | 16.0 | 39.4 | 16.5 |
| Unwed Parents | 20.6 | 16.1 | 48.4 | 14.8 | 17.3 | 16.3 | 50.3 | 16.1 |
| After 9/76 | 20.0 | 20.0 | 42.4 | 17.6 | 20.8 | 17.9 | 43.4 | 17.9 |
| 10/74 - 9/76 | 23.2 | 17.5 | 42.9 | 16.4 | 16.0 | 18.8 | 47.2 | 18.1 |
| 10/73 - 9/74 | 13.3 | 7.7 | 60.8 | 18.2 | 17.3 | 13.6 | 58.0 | 11.1 |
| 10/72 - 9/73 | 23.5 | 19.1 | 45.1 | 12.3 | 18.0 | 16.9 | 48.3 | 16.9 |
| Before 10/72 | 21.2 | 15.1 | 52.7 | 11.0 | 12.8 | 8.5 | 66.0 | 12.8 |
| Timing of first marriage: | | | | | | | | |
| After 9/76 | | | | | | | | |
| Nonparents | 26.8 | 28.0 | 31.2 | 14.0 | 28.2 | 23.4 | 31.6 | 16.7 |
| Married Parents | 29.5 | 22.1 | 30.1 | 18.3 | 27.2 | 17.2 | 33.7 | 21.9 |
| 10/74 - 9/76 | | | | | | | | |
| Nonparents | 29.4 | 21.6 | 32.9 | 16.1 | 30.6 | 17.6 | 35.5 | 16.4 |
| Married Parents | 27.9 | 22.2 | 32.8 | 17.0 | 28.9 | 16.2 | 37.2 | 17.6 |
| 10/72 - 9/74 | | | | | | | | |
| Nonparents | 23.2 | 17.1 | 43.1 | 16.7 | 23.4 | 11.6 | 48.2 | 16.8 |
| Married Parents | 26.6 | 16.2 | 40.9 | 16.2 | 25.7 | 10.6 | 48.0 | 15.7 |
| Before 10/72 | | | | | | | | |
| Nonparents | 16.2 | 8.1 | 61.5 | 14.2 | 3.7 | 14.8 | 74.1 | 7.4 |
| Married Parents | 23.3 | 9.6 | 52.3 | 14.8 | 23.6 | 12.0 | 48.6 | 15.8 |

of ability and achievement during high school. Table 4.5 shows that among NLS participants, as in other studies of age at marriage and first birth (Haggstrom et al., 1981), both males and females who married and became parents at relatively young ages tended to come from families of lower socioeconomic status (SES). This generalization holds for all four of the characteristics of the parental family we include here: parents' educational attainment, the status of the father's occupation, the NLS composite SES measure, and family income. Both sexes show this inverse relationship between their own timing of family formation and the SES of their parental family. In addition, unmarried parents tend to come from families with relatively low SES. For example, family income is lower for *all* categories of unwed mothers and fathers than for any married parents, regardless of timing of the birth. Within each category of timing of marriage, the nonparents have higher parental family incomes than the parents in all but one of the comparisons. Similarly, the SES of the father's occupation is lowest for unwed parents, higher for married parents, and highest for married nonparents and single nonparents, respectively.

Table 4.6 shows that the more able the student and the higher the achievement during high school, the later the entry into marriage and parenthood. As with parental SES, unwed parents, married parents, married nonparents, and single nonparents tend to form a continuum of ability and achievement during high school, with unwed parents scoring lowest on these measures, and single nonparents highest. For example, female unwed parents have lower average class rank and grade-point average than married parents, and those with an early first birth either within or outside marriage have lower average achievement than those with either a later first birth or no first birth by October 1979. Those who have deferred parenthood past this date have higher average ability as measured in the NLS. Clearly, those most oriented toward college by their family background and their own abilities and achievements tend to delay family formation, but the means in Table 4.6 suggest that the most able and achieving delay marriage and parenthood even past the typical date of college graduation, which for the Class of 1972 is June 1976. Those males and females who became parents between October 1976 and October 1979 show lower average class rank, grade-point average, and ability than those who remained childless at the later date, whether or not they had married. Finally, Table 4.6 shows that early parents—wed and unwed—tend not to enroll in an academic curriculum in high school, but to take a vocational/technical or general curriculum.

To summarize, we generally find the same relationships between the characteristics of NLS participants and the timing of family formation as have been found in studies of other samples. Early parenthood is more frequent among black than among white males and females; Hispanics marry and become parents somewhat earlier than non-Hispanic whites; and early parents tend to come from families of relatively low SES and have relatively low academic abilities and achievements during high school. These patterns, found primarily in studies of females, also generally hold for males; high school graduates in the NLS show the same relationships as the general population usually studied in other research.

## Table 4.5

### FAMILY BACKGROUND OF NLS PARTICIPANTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | Males | | |
|---|---|---|---|---|---|---|
| Parenthood Status | Father's Occupation | Parent's Education | Log Family Income | Father's Occupation | Parent's Education | Log Family Income |
| Nonparents | | | | | | |
| Single | 45.3 | 12.9 | 9.2 | 45.0 | 12.8 | 9.3 |
| Ever Married | 43.5 | 12.5 | 9.2 | 43.5 | 12.6 | 9.3 |
| Married Parents | 36.1 | 11.7 | 9.0 | 36.1 | 11.7 | 9.1 |
| After 9/76 | 40.0 | 12.1 | 9.1 | 38.5 | 12.0 | 9.2 |
| 10/74 - 9/76 | 35.8 | 11.6 | 9.0 | 35.4 | 11.7 | 9.1 |
| 10/73 - 9/74 | 33.0 | 11.2 | 9.0 | 31.9 | 11.3 | 9.1 |
| 10/72 - 9/73 | 30.8 | 11.3 | 9.0 | 32.7 | 11.3 | 9.0 |
| Before 10/72 | 32.6 | 11.4 | 8.8 | 38.1 | 11.2 | 9.1 |
| Adoptive Parents | 42.6 | 12.1 | 9.0 | 33.8 | 11.6 | 9.1 |
| Unwed Parents | 28.5 | 11.3 | 8.6 | 30.5 | 11.4 | 8.9 |
| After 9/76 | 29.9 | 11.7 | 8.7 | 31.6 | 11.5 | 9.0 |
| 10/74 - 9/76 | 29.1 | 11.1 | 8.7 | 30.3 | 11.6 | 8.9 |
| 10/73 - 9/74 | 26.8 | 11.0 | 8.6 | 29.5 | 11.3 | 8.9 |
| 10/72 - 9/73 | 28.9 | 11.4 | 8.6 | 32.4 | 11.3 | 8.8 |
| Before 10/72 | 27.4 | 11.1 | 8.6 | 26.6 | 11.1 | 8.9 |
| Timing of first marriage: | | | | | | |
| After 9/76 | | | | | | |
| Nonparents | 45.9 | 12.8 | 9.3 | 45.0 | 12.8 | 9.3 |
| Married Parents | 41.9 | 12.4 | 9.2 | 39.4 | 12.2 | 9.1 |
| 10/74 - 9/76 | | | | | | |
| Nonparents | 44.1 | 12.6 | 9.3 | 42.4 | 12.5 | 9.3 |
| Married Parents | 38.9 | 12.1 | 9.1 | 36.7 | 11.9 | 9.1 |
| 10/72 - 9/74 | | | | | | |
| Nonparents | 40.6 | 12.2 | 9.2 | 40.3 | 12.2 | 9.2 |
| Married Parents | 35.7 | 11.6 | 9.0 | 35.1 | 11.6 | 9.1 |
| Before 10/72 | | | | | | |
| Nonparents | 34.6 | 11.6 | 9.0 | 39.7 | 11.9 | 8.8 |
| Married Parents | 32.8 | 11.3 | 8.9 | 33.9 | 11.2 | 9.0 |

## Table 4.6

## HIGH SCHOOL ABILITY AND ACHIEVEMENT OF NLS PARTICIPANTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | Males | | | |
|---|---|---|---|---|---|---|---|---|
| | Academic Ability | Rank in Class | High School Program | | Academic Ability | Rank in Class | High School Program | |
| Parenthood Status | | | Academic | Vocational | | | Academic | Vocational |
| Nonparents | | | | | | | | |
| Single | 211.4 | 64.1 | 53.3 | 18.5 | 208.7 | 51.4 | 52.6 | 15.7 |
| Ever Married | 209.0 | 64.1 | 46.1 | 24.4 | 206.7 | 51.1 | 47.8 | 17.4 |
| Married Parents | 194.8 | 54.8 | 24.4 | 34.4 | 191.4 | 41.5 | 29.5 | 27.0 |
| After 9/76 | 200.7 | 59.0 | 32.6 | 30.1 | 197.7 | 46.2 | 38.3 | 22.9 |
| 10/74 - 9/76 | 194.6 | 54.9 | 22.3 | 36.3 | 187.9 | 39.6 | 24.3 | 31.7 |
| 10/73 - 9/74 | 186.6 | 49.1 | 16.1 | 39.5 | 185.4 | 34.6 | 17.9 | 27.3 |
| 10/72 - 9/73 | 190.0 | 49.8 | 17.8 | 36.8 | 181.7 | 35.9 | 21.3 | 30.2 |
| Before 10/72 | 186.5 | 52.6 | 17.3 | 33.1 | 182.1 | 33.4 | 9.6 | 36.5 |
| Adoptive Parents | 194.2 | 53.9 | 22.2 | 32.1 | 193.0 | 43.7 | 28.7 | 27.7 |
| Unwed Parents | 174.3 | 43.8 | 22.3 | 36.5 | 177.2 | 35.4 | 21.4 | 30.8 |
| After 9/76 | 166.0 | 49.1 | 35.2 | 36.8 | 182.0 | 34.5 | 24.5 | 34.0 |
| 10/74 - 9/76 | 169.4 | 43.3 | 20.9 | 36.7 | 181.6 | 38.9 | 23.6 | 25.0 |
| 10/73 - 9/74 | 172.9 | 45.4 | 21.0 | 35.0 | 175.3 | 29.9 | 19.8 | 38.3 |
| 10/72 - 9/73 | 174.7 | 41.8 | 17.6 | 38.7 | 169.8 | 35.1 | 21.3 | 29.2 |
| Before 10/72 | 169.6 | 41.2 | 20.5 | 34.2 | 168.1 | 35.8 | 10.6 | 31.9 |
| Timing of first marriage: | | | | | | | | |
| After 9/76 | | | | | | | | |
| Nonparents | 213.5 | 66.6 | 56.0 | 18.4 | 211.7 | 54.5 | 55.2 | 14.5 |
| Married Parents | 200.2 | 57.8 | 40.1 | 24.7 | 199.2 | 45.4 | 39.7 | 22.5 |
| 10/74 - 9/76 | | | | | | | | |
| Nonparents | 210.5 | 65.7 | 47.5 | 23.0 | 203.8 | 49.5 | 44.1 | 17.8 |
| Married Parents | 201.8 | 57.5 | 35.7 | 28.6 | 194.4 | 45.0 | 36.7 | 24.4 |
| 10/72 - 9/74 | | | | | | | | |
| Nonparents | 202.1 | 58.9 | 34.1 | 31.4 | 197.3 | 43.0 | 30.9 | 25.6 |
| Married Parents | 193.7 | 54.9 | 21.6 | 36.5 | 188.3 | 39.4 | 23.8 | 29.1 |
| Before 10/72 | | | | | | | | |
| Nonparents | 198.7 | 60.7 | 18.9 | 45.3 | 182.5 | 32.4 | 22.2 | 29.6 |
| Married Parents | 188.8 | 51.3 | 14.9 | 38.7 | 183.9 | 33.2 | 15.8 | [illegible] |

# Chapter 5

# THE NATURE AND EXTENT OF EMPLOYMENT

## INTRODUCTION

This chapter examines the impact of the transition to parenthood on the amount of time men and women spend on paid employment. The arrival of the first child signals a major change for both sexes in the roles they occupy, the responsibilities attendant on these roles, and use of time and money as a result (Rindfuss, Bumpass, and St. John, 1980). Young children demand a great deal of time and attention from their parents or other caregivers, and entail new expenses and concerns for their parents. One of the most obvious changes—at least in the short run—is the shift in new mothers' activities. In the past, the vast majority of women devoted all their time to the home (Sweet, 1972); currently, a substantial minority combine paid employment *and* responsibility for a young child. In 1983, nearly half the mothers of children under three years old were in the labor force (U.S. Department of Labor, 1983).

Parenthood usually imposes heavier financial responsibilities on the father—the more so if his wife leaves paid employment for full-time care of the child, to a lesser extent if she remains at work but they must arrange for childcare. The time demands of a young child also may involve the father much more in activities at home, but the literature on time-use suggests that fathers, on average, spend little time on childcare (Stafford, 1980).

Parenthood tends to push men and women into traditional sex roles—the woman as homemaker, the man as breadwinner (LaRossa and LaRossa, 1981; Shapiro and Mott, 1979). Thus, we expect the first birth to decrease women's work activities and increase men's. Because the role obligations of unmarried parents are much less clear—men less often responsible for support, women for childcare (Furstenberg, 1976; Moore and Burt, 1982)—we expect smaller changes in activities for unmarried parents.[1]

Both sociological and economic perspectives have been used to explain the divergent paths that men and women typically follow, men focusing on employment primarily, women on home and family. Economists focus on male/female differences in skills in the home and the market, differential wage rates, and returns to work in the market versus work in the home. They argue that married women will allocate time to the market only if their wage rate exceeds the value that they implicitly place on their time at home (Gronau, 1973). Presence of children, especially young children, raises the housewife's value of time at home for two reasons: first, because paid childcare is expensive, and second, because many parents may value their own quality of care more highly than hired childcare, especially when the children are young (Leibowitz, 1974; Hill and Stafford, 1980).

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[1] Furstenberg reports that unmarried teenage mothers who remain in their parents' home often rely heavily on their mothers for childcare, often while they attend school.

Sociologists focus on the social advantages of these distinct male/female constellations of activities or "roles" (Marwell, 1975), and on the incompatibility of worker and mother roles in industrial societies (Dixon, 1975; Waite and Stolzenberg, 1976; Weller, 1977). From that perspective, beliefs or attitudes about sex roles, not dollar costs and benefits, keep mothers of young children at home while the fathers work (Scanzoni, 1979; Retert and Bumpass, 1974).

From both sociological and economic perspectives, a woman's employment choices around the birth of the first child are important both as predictors of the extent of her later work activity (Mott and Shapiro, 1983) and as determinants of her career progression (Mincer and Polachek, 1974; Mincer and Ofek, 1982). Men's employment choices also affect later career outcomes, but in different ways from women's.

This chapter examines the employment choices that young men and women make around the time of the birth of their first child. A number of recent studies have analyzed the labor force participation of young women around the time they have their first child; these provide a context and starting point for our analysis, which extends previous research in several ways: (1) we examine activities of *both* men and women who become parents; (2) we assess several distinct dimensions of employment activity; and (3) we estimate parents' *expected* employment in the absence of parenthood. Thus, we can describe the changes in people's employment activities, trace the mechanisms through which these changes occur, and compare actual activities with those that would have occurred according to our estimates, if the individuals had not become parents.

Our analysis focuses on short-run effects of parenthood for several reasons. As we argued earlier, employment choices made around the first birth may affect later career choices and attainment. Because children's need for intensive care diminishes as they get older—for example, when they are in school for much of the day—the most dramatic changes occur with the birth. Also, Cramer (1979a) asserts that a short-run perspective makes sense theoretically, because couples appear to base decisions on immediate and obvious costs, and may not clearly perceive or consider long-run consequences (see also Simon, 1966).

In some respects, our approach resembles that of Shapiro and Mott (1979), who traced the labor force participation[2] of young women from two years prior to the first birth through the year following it. They found that rates fell sharply as the birth approached, but that in the month after the child was born about 20 percent of the white and 40 percent of the black mothers remained in the labor force, compared with 75 and 93 percent, respectively, two years prior to the birth. The proportion employed, and the proportion employed *and* at work dropped more sharply than participation, with blacks more active than whites on all three indicators. The authors also modeled labor force participation rates for several six-month segments prior to and shortly following the first birth. They found that the participation of white women responded more sharply to the presence of an infant than did that of black women, and that participation around the first birth increased linearly with the woman's educational attainment. Married women consistently showed lower participation rates than unmarried women.

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[2] According to the definition used by the Department of Labor, labor force participation measures the proportion of a given population that either holds a job or is actively searching for one. Employment includes only those with a job (although they may be on vacation, on leave, or absent from work because of an industrial dispute), whereas "out of the labor force" refers to those without a job and not looking for one (U.S. Department of Labor, 1983).

In a related analysis, Mott and Shapiro (1983) examined the effect of participation around the first birth on fertility and work activity during the next five years. They concluded that participation in the face of childbearing is strongly linked to the extent of later work involvement, but that there is no corresponding link between early work activity and later fertility.

McLaughlin (1982) found that young women's job-holding patterns during the two years centered on the first birth depend on education, work experience, and financial well-being. Women with some college, and those with longer work experience, leave the labor force more slowly and reenter more quickly than those with less schooling or experience; they are also more likely to retain jobs throughout the pregnancy and after the birth. McLaughlin also found that financial well-being has limited effects on patterns of participation around the first birth, although those with low levels do return to work slightly more quickly.

One other study provides some evidence on how parenthood affects women's employment behavior. Cramer (1979a) calculated the opportunity cost of a birth in the late 1960s and early 1970s for young married women who already had at least one child. The birth of an additional child reduced time spent in employment—calculated at about age two—by approximately 400 hours over the year. Cramer found that the time-cost of a birth does not depend on birth order or on the age of the oldest sibling, husband's wage, wife's education, or potential wage rate. In addition to these substantive findings, this study makes an important point. The time-cost of a birth comprises two components: the direct cost of time spent on a baby, which can be thought of as a sidetracking from one's own trajectory, and what Cramer calls the "postponement effect," or the cost of falling behind the trajectory of one's reference group. The analysis presented here explicitly compares the direct effect of parenthood with the indirect, or postponement effect.

Fewer studies examine parenthood effects on men's than on women's employment, perhaps because men's employment varies so little. Cross-sectional analyses of husbands' response to the birth of a child show trivial increases in hours of work, on the order of 10 to 20 hours per year (Lindert, 1978; Cramer, 1979a). However, one longitudinal analysis showed that men whose wives had a birth during the year increased their employment substantially--by 192 hours per year—compared with husbands without a new baby (Cramer, 1979b).

## CAUSALITY

In this chapter we assess the effect of parenthood on various dimensions of employment, ignoring the effect of employment on the first birth. Virtually all research on the causal connection between women's labor force activity and fertility finds that—at least in the short run—fertility influences work but work has no measurable impact on fertility (although the link between attitudes or *plans* for these activities seems to run from employment to fertility; see Waite and Stolzenberg, 1976). Hout (1978:151) concludes that:

> . . . in the short run, the discomforts of pregnancy and the demands of newborns decrease [women's] labor force participation and thereby account for the negative association between fertility and employment, while, in the long run, fertility is curtailed to accommodate career commitments.

Both Cramer (1980) and Smith-Lovin and Tickamayer (1978) conclude that causality runs only or predominantly from childbearing to labor force activity, at least in the short run. The Mott and Shapiro (1983) findings discussed earlier support these other studies.

The causal picture for men is less clear-cut. A number of studies have examined the effect of the birth of a child on men's work effort, but few have tried to assess causal direction. The impact of husband's earnings and family income adequacy appears to depend on initial parity (Hout, 1978; Hofferth, 1983). Hout (1978) finds that higher resources increase the chances of a birth only among white couples with fewer than two children; those at higher parities showed no effect, either positive or negative. Hofferth (1983) reports no effect of husband's labor force hours, wages, or family assets at the beginning of the period on fertility. Husbands with a birth do not increase their hours of employment, and experience *lower* increases in wages after the birth than childless men in this study. Family financial resources may affect *timing* of childbearing with little—or at least much less—effect on total completed family size. Evidence on the impact of children on men's employment is contradictory.

## RESEARCH QUESTIONS

Our analysis begins by examining the labor force participation of the NLS participants, thereby complementing several key studies on this topic. We extend these studies through our answers to the following questions:

- How does employment status of women change over the period of the first birth? Does this change depend on marital status at the birth?
- What part of employment change reflects moves out of paid work entirely, what part a reduction in hours on the job?
- What proportion of mothers continue to work full-time over the period surrounding the first birth?
- How are women's average hours of work affected by childbirth?
- Does childbirth reduce or increase women's mobility between employers?
- How does men's employment respond to parenthood?
- Does this response depend on marital status at the birth?
- Through what channels—hours of work, moonlighting, job changes—do men's employment activities respond to parenthood?

In general, we expect the same *pattern* of change in women's employment during the period prior to and after the first birth as that shown in recent studies. Our analysis adds considerably to our understanding of these changes through focus on several dimensions of labor force behavior.

## APPROACH FOR ASSESSING CONSEQUENCES OF PARENTHOOD

We view parenthood effects as highly individualistic, varying over time and from person to person because of a host of factors, many of them unknown and unknowable. Personality traits, world views, competence in general and in specific spheres, skill at dealing with others, ambitions, and luck all may affect how young people change their behaviors in the years after high school. Our task is to separate changes due to these extraneous forces from changes that occur as a result of becoming a parent. In addition, we want to separate the consequences of parenthood from those of marriage, although we recognize that this is possible only up to a point. Most people form plans and make decisions about different parts of their lives not in isolation, but in a way that recognizes interdependence among various goals. Preferences and plans regarding family life often influence decisions regarding education and career, and vice versa. Moreover, anticipated events may be as important in influencing life choices as events that have already occurred. Thus, people may change behaviors *in anticipation of* parenthood.

Our analyses examine *average* changes in employment-related outcomes for various categories of parents, including all parents, those who were married at the time of the first birth ("married parents"), and those who were single at the first birth ("unwed parents"). We also present the results for married and unwed parents categorized by timing of parenthood and timing of marriage. Comparisons of average changes across groups and over time help us to assess the consequences of parenthood. For example, we can observe whether parents change their activities around the time they become parents, and if so, whether they change more at that time than they do at other times, or whether they change more than nonparents do at the same time. If we find exceptional patterns of change among parents relative to nonparents and if these changes concentrate around the time the first child is born, such a pattern will suggest that parenthood has consequences for the activities in question. Often, however, the data will only partially conform to this pattern. For example, parents and nonparents will show different patterns of activity, but there will be no obvious link with the timing of parenthood. Such patterns are ambiguous, and can usually be interpreted in terms of preexisting differences between parents and nonparents.

To assess the effects of parenthood as defined in Chap. 3, we need to compare the actual changes in parents' activities (or other outcomes) with the expected changes in those measures in the absence of parenthood. The latter are estimated using regression equations based on concurrent observations of nonparents who were married at about the same time, had the same educational attainment at the time of observation, and had similar background characteristics. The estimated average effects of parenthood, then, are the changes in the observed means of the activity measures less the corresponding estimated changes in the expected means for the same parents. We depict the results of this analysis graphically by showing smoothed plots of the actual and estimated expected outcomes for the three-year period beginning with the twelfth month before the birth.

Our analysis of the consequences of parenthood for young adults' employment includes a number of complementary measures of job-related activities;

most are available for each year of the survey period, 1972 through 1979. These measures of employment all refer either to the first week in October of each year, or to the entire year preceding this reference point. To determine the impact of parenthood on the nature and extent of employment among young adults, we analyze: (1) employment status; (2) number of hours worked in the reference week; (3) full-time employment status for workers (35 hours per week or more); (4) overtime work status (48 hours per week or more); (5) labor force participation; (6) weeks worked in the previous year; and (7) number of employers in the previous year.

Employment status, labor force participation, and overtime work status are all dichotomous variables, scored one if the respondent was employed, in the labor force, or working overtime, respectively, and zero otherwise. Hours worked, weeks worked, and number of employers are based on the respondent's report, with those not working receiving codes of zero.

## RESULTS

### Women's Employment Activities

Our analysis of the consequences of parenthood for women's employment activities begins by examining the percentage who had a job before and after the first birth. Table 5.1 shows these figures for females (in the left panel) and for males (in the right panel) by marital status at the birth, timing of marriage, and timing of parenthood. By comparing mean employment rates for parents in the year preceding the first birth with the rates for the same group in the following year(s), one can assess the consequences of parenthood for employment. One can also compare employment rates for parents in any year with those for married or single nonparents. For example, married women who bore their first child between October 1973 and September 1974 had employment rates of 48 percent in the earlier year and 27 percent in the later year. These two points correspond to the year preceding and the year following the birth, during which time employment rates fell by nearly half, presumably as a result of the birth. The rates then rapidly rose again to just below their previous, pre-birth level, where they remained fairly steady. This comparison suggests strong but short-lived effects of the first birth on married women's job-holding.

Comparisons for married women who had a first birth between 1974 and 1976, and between 1976 and 1979, show the same pattern of a drop in employment of nearly half followed by an increase. These same comparisons for unwed mothers show slightly lower initial employment rates, with much smaller declines in employment in the following year. For those with a first birth between 1973 and 1974 (the group used in the comparison above for married mothers), employment rates fell from 42 to 35 percent for unwed mothers, compared with a drop from 48 to 27 percent for married mothers. Among those bearing a first child out of wedlock in the following years (1974–1976) employment fell very little after the birth (55 versus 50 percent).

However, comparisons of activities for the same individual or group of individuals before and after the birth tell only part of the story—the deviation of the person from her previous status. To assess the effects of parenthood, one must compare the changes before and after the birth with the changes that

## Table 5.1

## PERCENTAGE OF ALL NLS RESPONDENTS WITH A JOB BY MARITAL AND PARENTHOOD STATUS

| Parenthood Status | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1972 | 1973 | 1974 | 1976 | 1979 | Sample Size Mean | Sample Size Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Sample Size Mean | Sample Size Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 42.2 | 55.6 | 62.4 | 77.0 | 90.0 | 2398 | 2043 | 52.3 | 60.3 | 64.6 | 73.5 | 86.8 | 3267 | 2619 |
| Ever Married | 51.9 | 67.1 | 69.8 | 81.8 | 86.7 | 2622 | 2129 | 58.6 | 67.8 | 74.2 | 84.2 | 94.4 | 2268 | 1766 |
| Married Parents | 55.4 | 62.5 | 58.2 | 55.2 | 50.5 | 3497 | 2885 | 71.6 | 80.2 | 87.2 | 91.3 | 95.5 | 2449 | 1839 |
| After 9/76 | 57.3 | 72.5 | 74.2 | 76.8 | 48.1 | 1354 | 1178 | 67.6 | 75.2 | 83.1 | 89.6 | 95.9 | 1183 | 966 |
| 10/74 - 9/76 | 62.0 | 72.6 | 61.5 | 36.0 | 49.5 | 1000 | 830 | 73.1 | 81.5 | 91.3 | 93.4 | 95.9 | 702 | 507 |
| 10/73 - 9/74 | 57.9 | 48.1 | 27.2 | 43.1 | 51.5 | 535 | 421 | 76.0 | 88.7 | 92.6 | 92.7 | 95.4 | 273 | 195 |
| 10/72 - 9/73 | 38.5 | 54.0 | 43.1 | 48.4 | 57.7 | 444 | 331 | 79.3 | 90.9 | 8[illegible].2 | 92.3 | 92.6 | 203 | 122 |
| Before 10/72 | 31.7 | 46.8 | 50.8 | 54.4 | 60.4 | 120 | 106 | 89.8 | 91.7 | 93.9 | 92.2 | 92.1 | 47 | 38 |
| Adoptive Parents | 54.4 | 71.4 | 64.2 | 68.8 | 50.7 | 77 | 71 | 70.7 | 84.2 | 85.8 | 93.9 | 94.8 | 172 | 135 |
| Unwed Parents | 43.6 | 51.6 | 51.4 | 56.8 | 64.5 | 696 | 467 | 61.7 | 73.4 | 75.0 | 80.8 | 93.0 | 388 | 214 |
| After 9/76 | 50.0 | 62.1 | 64.5 | 71.2 | 66.7 | 112 | 93 | 61.6 | 71.3 | 70.2 | 82.7 | 94.8 | 90 | 58 |
| 10/74 - 9/76 | 45.9 | 64.5 | 54.6 | 50.3 | 63.7 | 157 | 102 | 56.4 | 72.7 | 68.2 | 73.9 | 90.9 | 120 | 66 |
| 10/73 - 9/74 | 42.3 | 41.5 | 35.2 | 53.7 | 67.1 | 123 | 79 | 63.9 | 77.0 | 82.5 | 84.3 | 90.6 | 65 | 32 |
| 10/72 - 9/73 | 40.5 | 40.3 | 45.9 | 53.1 | 60.6 | 172 | 99 | 63.9 | 76.2 | 74.7 | 84.7 | 94.3 | 71 | 35 |
| Before 10/72 | 41.1 | 51.8 | 59.7 | 60.3 | 64.9 | 131 | 94 | 70.5 | 68.9 | 93.3 | 86.4 | 95.7 | 40 | 23 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 46.5 | 61.8 | 65.3 | 83.5 | 87.5 | 1056 | 904 | 51.7 | 60.2 | 65.6 | 80.3 | 94.4 | 1223 | 1029 |
| Married Parents | 50.3 | 66.3 | 67.9 | 84.3 | 43.8 | 289 | 235 | 64.8 | 67.9 | 76.9 | 83.7 | 94.6 | 350 | 277 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 49.2 | 64.6 | 71.0 | 80.4 | 86.5 | 798 | 639 | 63.4 | 72.5 | 79.3 | 88.3 | 94.0 | 691 | 481 |
| Married Parents | 57.6 | 74.8 | 75.8 | 63.1 | 48.5 | 760 | 648 | 65.7 | 73.8 | 82.7 | 92.6 | 94.5 | 791 | 599 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 62.9 | 76.6 | 74.4 | 82.0 | 86.3 | 626 | 482 | 71.7 | 83.3 | 93.8 | 88.5 | 95.4 | 326 | 238 |
| Married Parents | 63.3 | 63.7 | 53.7 | 48.7 | 50.9 | 1572 | 1294 | 75.1 | 86.5 | 92.6 | 92.9 | 96.5 | 1075 | 807 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 58.9 | 76.1 | 74.3 | 77.2 | 82.5 | 135 | 103 | 88.5 | 92.6 | 85.2 | 96.3 | 94.1 | 24 | 17 |
| Married Parents | 40.5 | 48.2 | 47.2 | 50.2 | 54.1 | 865 | 701 | 86.0 | 91.3 | 93.0 | 90.0 | 95.4 | 224 | 153 |

would have occurred in the absence of parenthood. As an indication of the latter, we look at changes among nonparents in the same class who have the same marital status. Employment rates for nonparents rose gradually but steadily from 1972 through 1979, as these young women finished school and went to work; in the final year only 10 percent of the single nonmothers and 14 percent of the married nonmothers did not have a job. But the mothers—both married and unwed—show much lower employment rates, 51 percent for the married mothers and 65 percent for the unwed mothers, when one considers all timing categories combined. This comparison suggests substantial and long-lasting effects of parenthood. Both comparisons have limitations as assessments of the "true" consequences of parenthood; the before-after comparison does not allow for growth or decline in the activity over time, whereas the comparison with nonparents does not take into account differences in the characteristics or activities of the two groups that might affect the behavior in question.

To estimate the effects of parenthood as they were defined in Chap. 3, we need to compare actual outcomes over time with estimated outcomes in the absence of parenthood. Figure 5.1 shows how the employment rates of women changed during the year before and two years after the first birth.[3] This figure shows a decline, beginning at about the time of conception, from an employment rate of about 75 percent to about 22 percent in the month of the birth. This latter figure is very close to the 20 percent in the labor force reported by Shapiro and Mott (1979) from the National Longitudinal Survey's "The Labor Market Experience of Young Women," and is somewhat higher than McLaughlin's (1982) 12 percent from the same dataset. Clearly, these different samples provide a similar picture of the pattern and level of women's employment around their first birth. By two years after the birth, mothers' employment rates in our sample have risen to about 45 percent. The reader should keep in mind that we only have observations for two years after the birth for women who bore their first child before October 1977, when the NLS respondents were about age 23. This plot of women's actual employment in the period surrounding the first birth depicts the "direct costs" of motherhood, mentioned earlier by Cramer (1979a), as it reflects the deviation of the woman from her own trajectory, if we can think of that trajectory as defined by her activities preceding the birth. But it tells us nothing about the effects of motherhood due to falling behind her reference group, defined as married women similar to her but childless.

Figure 5.1 also shows estimated *expected* employment rates for these mothers if they had remained childless, based upon a regression model for predicting employment status for nonparents having similar marital histories and background characteristics. This graph begins at the same level as actual employment for these women, but instead of falling with the approaching birth, continues to rise gradually over the period to a rate of about 85 percent. We infer from this that, in the absence of parenthood, the women who experienced a first birth would have shown a slow but steady growth in employment instead of the decline we observe. The average effect of parenthood on employment,

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[3] Each month's employment rate was estimated using the employment statuses of all female parents whose responses were available for that month. Then the monthly rates were smoothed using a procedure outlined in App. A.

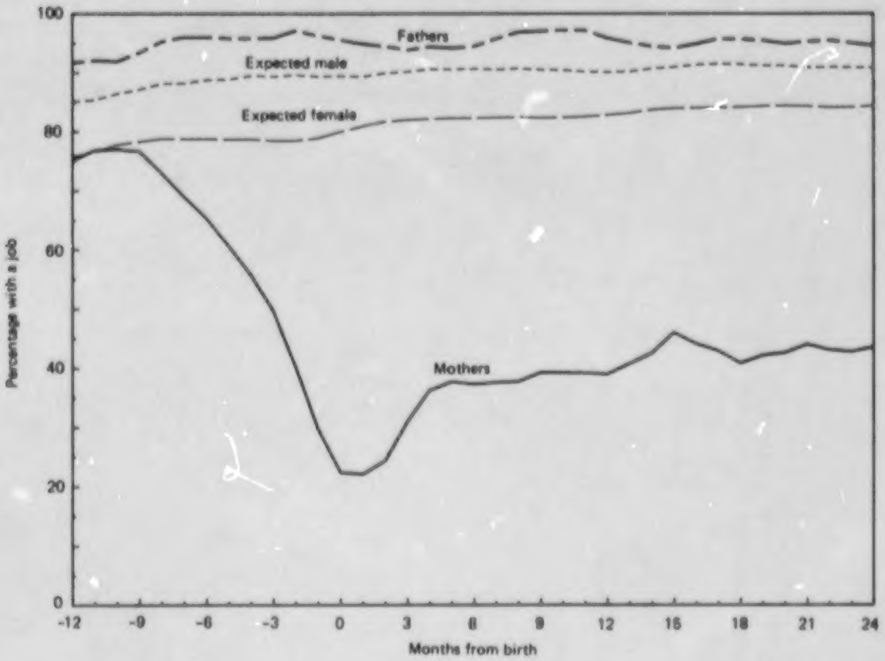

Fig. 5.1—Proportion employed

then, is not the difference between these women's previous rate of employment (75 percent) and that two years later (45 percent), but the difference between the 30 percent drop in their actual employment rate and the expected 10 percent increase (from 75 to 85 percent) in the absence of parenthood. This difference is about 10 percentage points greater than the simple before-after comparison suggests.

The analysis just reported has shown that the first birth results in a substantial and sustained fall in employment during the year before and two years after the birth. Does motherhood also influence the extent of employment for those who remain at work? Tables 5.2 and 5.3 present complementary information on this question; they show the proportion of workers with a full-time job and hours of work for workers. Table 5.2 shows small declines and occasional increases in the proportion working full-time among those employed. Increases in the proportion working full-time occur only among unwed mothers; married mothers show consistent declines in full-time employment of about 10 percentage points. Few differences in full-time work appear by timing of marriage. In all cases, those who marry in a particular year show an increasing propensity to work full-time whether or not they were parents by 1979. This suggests that women do not move to part-time employment at marriage if they remain in the labor force.

## Table 5.2

### PERCENTAGE OF EMPLOYED NLS RESPONDENTS WITH A FULL-TIME JOB BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 45.6 | 55.0 | 60.2 | 73.3 | 89.5 | 1539 | 1034 | 60.4 | 68.2 | 69.5 | 79.3 | 90.2 | 2205 | 1824 |
| Ever Married | 56.6 | 65.3 | 68.7 | 82.6 | 89.2 | 1847 | 1414 | 67.6 | 72.3 | 75.0 | 86.2 | 94.9 | 1740 | 1455 |
| Married Parents | 71.1 | 75.2 | 78.1 | 81.4 | 73.9 | 1958 | 1438 | 80.4 | 88.7 | 90.5 | 95.0 | 98.0 | 2136 | 1786 |
| After 9/76 | 64.0 | 69.5 | 76.9 | 86.3 | 73.0 | 890 | 560 | 74.5 | 84.0 | 84.8 | 92.9 | 97.9 | 992 | 854 |
| 10/74 - 9/76 | 74.1 | 79.2 | 82.6 | 74.6 | 72.6 | 560 | 374 | 82.8 | 89.1 | 94.3 | 96.3 | 98.4 | 628 | 491 |
| 10/73 - 9/74 | 76.4 | 81.8 | 70.1 | 76.2 | 77.3 | 240 | 154 | 87.0 | 95.1 | 97.2 | 97.4 | 97.9 | 253 | 193 |
| 10/72 - 9/73 | 79.3 | 78.6 | 75.5 | 77.1 | 74.5 | 190 | 159 | 89.6 | 96.8 | 94.6 | 96.9 | 97.3 | 183 | 112 |
| Before 10/72 | 77.8 | 76.8 | 77.4 | 76.5 | 77.4 | 56 | 36 | 84.1 | 100.0 | 95.7 | 100.0 | 97.2 | 43 | 36 |
| Adoptive Parents | 59.5 | 78.2 | 76.9 | 83.6 | 80.6 | 48 | 36 | 77.1 | 86.1 | 93.3 | 95.3 | 97.8 | 153 | 131 |
| Unwed Parents | 70.2 | 75.5 | 79.4 | 83.0 | 86.5 | 362 | 296 | 81.4 | 86.6 | 86.2 | 89.6 | 97.0 | 305 | 203 |
| After 9/76 | 60.0 | 72.2 | 78.2 | 81.0 | 93.4 | 70 | 55 | 81.8 | 89.0 | 76.9 | 84.1 | 94.5 | 72 | 55 |
| 10/74 - 9/76 | 74.7 | 73.3 | 80.0 | 83.0 | 82.8 | 86 | 64 | 69.6 | 80.8 | 85.7 | 90.3 | 96.7 | 89 | 61 |
| 10/73 - 9/74 | 69.6 | 79.2 | 72.0 | 83.1 | 84.3 | 56 | 50 | 91.3 | 89.7 | 86.2 | 91.7 | 96.7 | 51 | 30 |
| 10/72 - 9/73 | 77.8 | 80.0 | 85.4 | 84.2 | 81.0 | 79 | 58 | 87.5 | 89.7 | 92.2 | 92.1 | 100.0 | 57 | 34 |
| Before 10/72 | 63.6 | 74.2 | 78.0 | 83.5 | 90.3 | 70 | 55 | 64.8 | 87.2 | 95.3 | 92.1 | 100.0 | 35 | 23 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 49.9 | 55.4 | 58.0 | 81.1 | 90.8 | 719 | 505 | 63.0 | 67.4 | 68.2 | 81.7 | 94.0 | 870 | 687 |
| Married Parents | 60.5 | 65.6 | 70.8 | 84.4 | 78.4 | 182 | 102 | 72.7 | 84.4 | 80.3 | 90.4 | 97.0 | 276 | 245 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 49.5 | 61.9 | 68.9 | 83.7 | 87.8 | 552 | 410 | 66.1 | 71.5 | 75.9 | 90.2 | 95.2 | 557 | 457 |
| Married Parents | 61.6 | 66.5 | 77.1 | 85.9 | 73.2 | 484 | 310 | 73.6 | 82.9 | 86.5 | 94.1 | 98.3 | 667 | 579 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 66.5 | 77.8 | 80.6 | 82.2 | 88.6 | 473 | 412 | 80.5 | 84.8 | 89.0 | 91.7 | 97.4 | 289 | 228 |
| Married Parents | 73.3 | 80.1 | 81.0 | 78.0 | 70.7 | 877 | 652 | 84.4 | 91.7 | 94.6 | 96.4 | 98.1 | 976 | 787 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 81.9 | 84.1 | 85.2 | 90.1 | 87.1 | 98 | 83 | 91.3 | 91.7 | 95.2 | 92.0 | 100.0 | 21 | 16 |
| Married Parents | 81.2 | 79.3 | 76.6 | 80.3 | 78.7 | 406 | 361 | 90.7 | 97.0 | 95.7 | 97.7 | 98.0 | 209 | 151 |

## Table 5.3

## HOURS WORKED PER WEEK BY MARITAL AND PARENTHOOD STATUS, EMPLOYED RESPONDENTS ONLY

|  | Females |  |  |  |  |  |  | Males |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  | Sample Size |  |  |  |  |  |  | Sample Size |  |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Single | 27.1 | 29.3 | 31.6 | 36.0 | 41.2 | 1424 | 874 | 32.4 | 34.3 | 36.0 | 39.4 | 43.2 | 1902 | 1414 |
| Ever Married | 30.1 | 32.3 | 33.8 | 37.6 | 40.0 | 1715 | 1219 | 34.2 | 35.8 | 37.7 | 41.8 | 45.0 | 1484 | 1089 |
| Married Parents | 34.3 | 35.2 | 36.6 | 37.5 | 36.4 | 1783 | 1298 | 38.9 | 41.3 | 42.5 | 44.4 | 46.0 | 1790 | 1448 |
| After 9/76 | 31.7 | 33.7 | 36.0 | 38.5 | 35.8 | 814 | 506 | 36.8 | 39.5 | 40.9 | 43.7 | 45.7 | 835 | 644 |
| 10/74 - 9/76 | 35.5 | 36.6 | 37.6 | 35.7 | 36.5 | 507 | 369 | 39.8 | 41.9 | 43.4 | 44.6 | 46.4 | 527 | 416 |
| 10/73 - 9/74 | 36.5 | 36.4 | 35.7 | 36.8 | 37.4 | 219 | 150 | 40.5 | 43.5 | 44.7 | 45.7 | 46.5 | 210 | 159 |
| 10/72 - 9/73 | 36.4 | 36.1 | 36.9 | 37.2 | 36.3 | 174 | 139 | 42.3 | 44.4 | 43.7 | 45.2 | 45.3 | 156 | 97 |
| Before 10/72 | 34.4 | 36.0 | 37.4 | 35.9 | 37.7 | 54 | 31 | 42.1 | 44.9 | 44.1 | 47.3 | 46.6 | 37 | 28 |
| Adoptive Parents | 33.4 | 38.0 | 36.3 | 39.0 | 39.5 | 44 | 31 | 36.9 | 40.5 | 43.7 | 45.4 | 47.5 | 122 | 89 |
| Unwed Parents | 33.7 | 35.5 | 37.7 | 38.4 | 39.6 | 322 | 260 | 37.3 | 39.0 | 41.0 | 42.2 | 44.9 | 241 | 166 |
| After 9/76 | 31.2 | 34.5 | 38.5 | 39.5 | 42.9 | 64 | 49 | 37.5 | 38.9 | 40.1 | 41.9 | 45.1 | 56 | 39 |
| 10/74 - 9/76 | 35.3 | 35.6 | 36.7 | 37.6 | 38.5 | 73 | 57 | 34.2 | 37.0 | 41.2 | 42.6 | 43.3 | 69 | 53 |
| 10/73 - 9/74 | 34.4 | 37.0 | 37.2 | 38.5 | 39.2 | 51 | 43 | 39.8 | 39.7 | 40.3 | 42.5 | 49.0 | 41 | 21 |
| 10/72 - 9/73 | 35.6 | 35.0 | 39.7 | 38.0 | 38.1 | 71 | 51 | 38.7 | 40.2 | 41.8 | 42.5 | 44.7 | 46 | 27 |
| Before 10/72 | 31.4 | 36.0 | 36.4 | 38.7 | 39.1 | 62 | 46 | 39.1 | 40.6 | 42.8 | 41.2 | 45.1 | 28 | 20 |
| Timing of first marriage: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| After 9/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 28.2 | 29.5 | 30.6 | 37.3 | 40.3 | 671 | 447 | 32.4 | 33.9 | 35.5 | 40.5 | 44.7 | 740 | 510 |
| Married Parents | 29.8 | 32.8 | 35.0 | 39.3 | 37.1 | 166 | 97 | 36.1 | 39.8 | 39.2 | 42.8 | 45.1 | 227 | 175 |
| 10/74 - 9/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 28.3 | 31.1 | 33.8 | 37.7 | 39.3 | 512 | 344 | 33.9 | 35.6 | 37.8 | 42.6 | 44.9 | 480 | 375 |
| Married Parents | 31.7 | 32.7 | 35.7 | 37.9 | 36.0 | 444 | 282 | 36.7 | 38.8 | 40.9 | 43.8 | 46.0 | 561 | 424 |
| 10/72 - 9/74 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 33.0 | 35.9 | 37.3 | 37.6 | 40.4 | 435 | 350 | 39.0 | 40.6 | 42.6 | 44.2 | 46.5 | 242 | 185 |
| Married Parents | 35.1 | 36.4 | 37.3 | 36.8 | 35.8 | 795 | 580 | 40.1 | 42.7 | 44.0 | 45.1 | 46.3 | 820 | 669 |
| Before 10/72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 36.5 | 38.0 | 38.9 | 39.0 | 40.9 | 93 | 75 | 42.5 | 41.3 | 43.0 | 41.2 | 42.7 | 19 | 16 |
| Married Parents | 37.1 | 37.0 | 37.0 | 37.4 | 37.6 | 372 | 314 | 42.6 | 44.1 | 44.0 | 45.7 | 46.4 | 177 | 124 |

Table 5.3 shows precisely the same patterns of responses to parenthood as Table 5.2. Women who remain at work following the birth of their first child show small declines in average hours at work if they are married and increases if they are unmarried. The reductions in average hours for married mothers are about 3 hours per week, whereas the increases for unwed mothers range from 1 to 3 hours per week. This table also shows no relationship between marriage and hours of work, although all marriage cohorts show differences by 1979 in average hours of work for parents versus nonparents (see the column labeled "1979" in the rightmost panel of Table 5.3).

Comparisons of the extent of work activity for parents and nonparents show higher activity for parents in the years following high school, with increasing proportions of nonparents active full-time and a high average number of hours per week. By 1979, nonparents are more active at work than parents, on average. The low initial levels in the work activity of nonparents are due at least in part to their continued school enrollment. As they complete their educations, these women move increasingly into full-time jobs.

Figures 5.2 and 5.3 present the time series of outcomes corresponding to Tables 5.2 and 5.3 for parents and their estimated expected outcomes in the absence of parenthood for proportion employed full-time and hours worked by those with a job. These figures reflect labor supply by women in the labor force. As Fig. 5.1 shows, the proportion of all women in the labor force falls

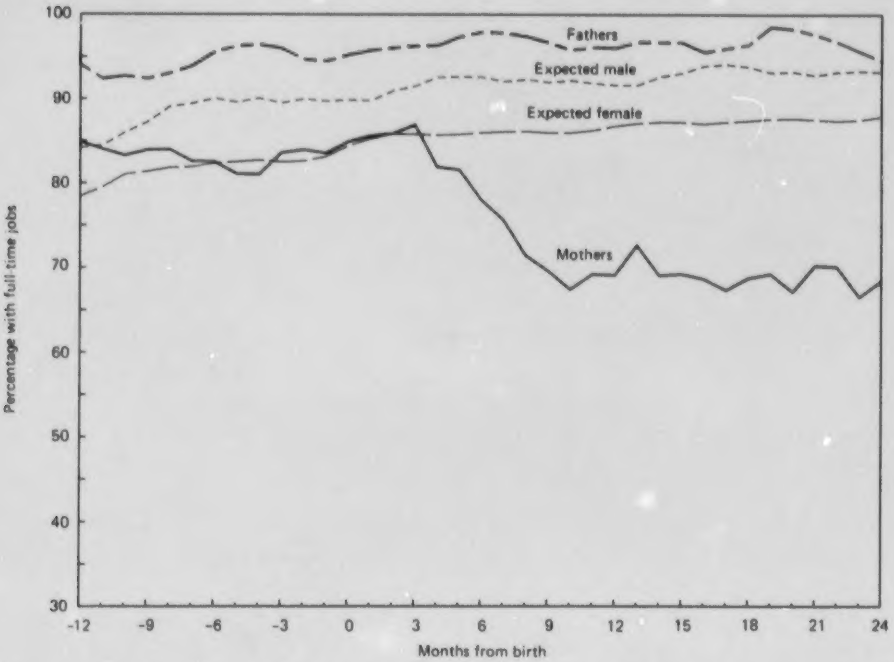

Fig. 5.2—Proportion of workers holding a full-time job

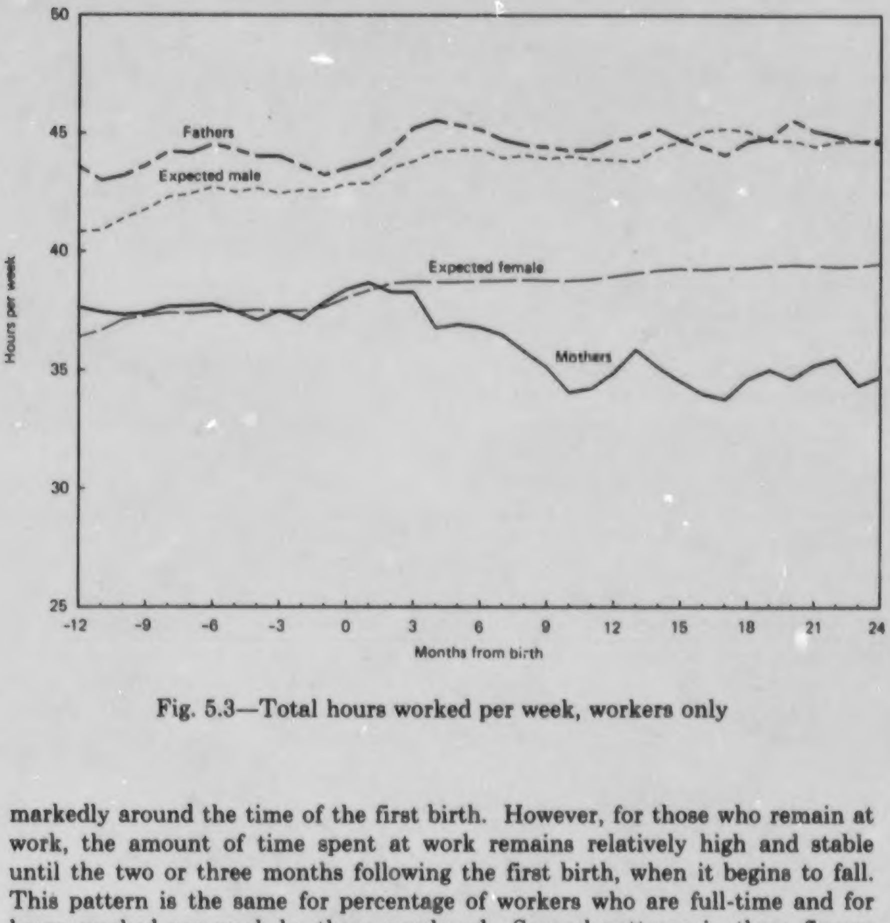

Fig. 5.3—Total hours worked per week, workers only

markedly around the time of the first birth. However, for those who remain at work, the amount of time spent at work remains relatively high and stable until the two or three months following the first birth, when it begins to fall. This pattern is the same for percentage of workers who are full-time and for hours worked per week by those employed. Several patterns in these figures deserve mention. The decline in the level of work effort does not begin until about three months *after* the birth. We see no drop in the proportion of women working full-time among those who remain employed in the months surrounding the birth, presumably the period of maximum physical stress. The slow decline in the proportion of women working full-time and in average hours at work, we believe, reflects the movement back to their jobs of women who left work—perhaps on a maternity leave—and returned part-time. These women might return to a different job that allows part-time work. They might be less committed to continuous labor force participation than women who remain at work, they might have had a more difficult pregnancy and delivery, or they might have jobs that demand more of them physically or entail inflexible working schedules.

Thus, most of the adjustment to a first birth for women occurs through their labor force participation rather than through work effort for those who keep their jobs. Those who remain at work during the month preceding and the several months following their first birth constitute the most committed workers, and these women apparently tend to devote full-time to their jobs even when their children are infants.

The plots for estimated work activity in the absence of parenthood allow us to compare parents and similar nonparents by taking account of differences in educational attainment, marital status and duration, and other characteristics. These comparisons in Figs. 5.2 and 5.3 show that motherhood does result in a drop in the level of work activity even among those who remain employed; however, the estimates of expected hours of work and percentage working full-time show little change over the period, so that we see about the same difference between women's levels of work effort before birth and after birth as between their actual and expected levels at any point.

Next, we examine average hours employed for all NLS female participants. This measure was defined to be zero for those without a job. It reflects the combined effects of withdrawals from employment and reductions in hours worked for those who retain their jobs. Table 5.4 presents the average hours of paid employment for females and males. This table shows no reduction in this measure of work activity for unwed mothers following their first birth, and declines of about half in the activity of married mothers. For example, those women who had their first child between 1974 and 1976 decreased their average hours of work from 23 to 13 per week if married and remained at about the same level (20 versus 19) if unmarried. The comparisons of marriage cohorts by parenthood status in 1979 show substantial reductions in hours of work after marriage for parents but increases for nonparents. Such a pattern suggests that parenthood reduces the number of hours spent in work activity, but that marriage does not. In fact, results of the regression analysis for ever-married nonparents, shown in App. B, Table B.4, indicate that marriage actually increases the average number of hours women spend employed by about two hours per week.

Figure 5.4 presents the time series of hours employed that corresponds to Table 5.4. This figure shows the same pattern as Fig. 5.1, percentage employed. In fact, hours employed for all workers depends primarily on employment and not hours given employment, as the reader will note by comparing the figures presented above. Average hours employed for all mothers begins to fall at about the time of conception, reaches a nadir in the birth month, and begins to rise thereafter. This measure of work activity stabilizes fairly quickly after the birth and remains at about 15 hours of employment per week per woman. The estimated expected average hours employment in the absence of motherhood rises over the period from 27 hours per week one year prior to the birth to 34 hours per week two years following it. The discrepancy between the actual decline and the expected increase indicates the substantial effects of a first birth on the average amount of work activity for women who became parents.

Next, we examine two measures of employment that refer to the previous year, number of weeks worked, and number of employers. Each of these measures is defined for those with and without jobs, the latter coded as zero on weeks worked and number of employers. Table 5.5 shows that the average number of weeks worked in the previous year tends to fall for those who became mothers during the year. As with other dimensions of work activity, unwed mothers show smaller declines than married mothers. Over the 1972 to

## Table 5.4

## HOURS WORKED PER WEEK BY MARITAL AND PARENTHOOD STATUS, ALL NLS RESPONDENTS

|  | Females |  |  |  |  |  |  | Males |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  | Sample Size |  |  |  |  |  |  | Sample Size |  |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Single | 10.3 | 14.8 | 19.5 | 27.6 | 36.8 | 2271 | 1935 | 15.4 | 19.2 | 22.9 | 28.7 | 36.9 | 2953 | 2369 |
| Ever Married | 14.5 | 20.5 | 23.4 | 30.7 | 34.4 | 2478 | 2003 | 18.7 | 23.2 | 27.8 | 34.9 | 42.2 | 2010 | 1609 |
| Married Parents | 17.5 | 20.5 | 21.0 | 20.5 | 17.3 | 3298 | 2726 | 27.1 | 33.7 | 37.0 | 40.5 | 43.8 | 2110 | 1629 |
| After 9/76 | 16.8 | 23.1 | 26.6 | 29.4 | 16.2 | 1268 | 1117 | 23.7 | 29.3 | 33.7 | 39.1 | 43.7 | 1029 | 865 |
| 10/74 - 9/76 | 20.5 | 25.3 | 22.9 | 12.7 | 17.2 | 941 | 792 | 28.6 | 35.4 | 39.7 | 41.6 | 44.2 | 603 | 453 |
| 10/73 - 9/74 | 20.1 | 16.1 | 9.5 | 15.6 | 18.0 | 511 | 393 | 31.6 | 41.1 | 41.8 | 42.1 | 44.0 | 233 | 168 |
| 10/72 - 9/73 | 12.5 | 11.1 | 15.4 | 17.8 | 19.6 | 425 | 304 | 34.0 | 41.5 | 39.2 | 41.6 | 41.8 | 174 | 105 |
| Before 10/72 | 9.3 | 15.5 | 18.7 | 19.4 | 22.2 | 116 | 102 | 38.9 | 41.5 | 42.0 | 43.4 | 42.1 | 40 | 31 |
| Adoptive Parents | 16.2 | 26.4 | 23.3 | 26.5 | 18.6 | 73 | 66 | 24.1 | 34.1 | 37.5 | 42.5 | 44.8 | 144 | 123 |
| Unwed Parents | 12.9 | 16.2 | 19.0 | 21.6 | 24.2 | 651 | 426 | 21.2 | 28.7 | 30.8 | 33.8 | 41.4 | 325 | 180 |
| After 9/76 | 14.3 | 20.1 | 24.3 | 27.9 | 27.8 | 106 | 88 | 20.3 | 29.0 | 29.1 | 34.4 | 42.3 | 75 | 48 |
| 10/74 - 9/76 | 13.6 | 20.3 | 19.7 | 18.6 | 23.4 | 143 | 94 | 18.1 | 25.6 | 27.7 | 30.5 | 38.9 | 101 | 59 |
| 10/73 - 9/74 | 13.6 | 13.5 | 13.1 | 20.6 | 24.4 | 116 | 69 | 21.8 | 28.4 | 33.1 | 36.1 | 42.9 | 54 | 24 |
| 10/72 - 9/73 | 12.1 | 12.4 | 18.0 | 20.2 | 21.6 | 163 | 90 | 23.3 | 30.9 | 30.9 | 35.9 | 43.1 | 60 | 28 |
| Before 10/72 | 11.2 | 16.4 | 20.9 | 23.1 | 23.9 | 122 | 85 | 27.6 | 32.8 | 39.7 | 35.1 | 43.0 | 33 | 21 |
| Timing of first marriage: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| After 9/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 12.2 | 17.1 | 19.9 | 31.1 | 34.9 | 1005 | 850 | 15.2 | 18.9 | 22.9 | 32.3 | 41.9 | 1091 | 933 |
| Married Parents | 13.6 | 20.3 | 23.5 | 33.0 | 15.7 | 270 | 229 | 21.9 | 25.9 | 29.5 | 35.7 | 42.4 | 301 | 248 |
| 10/74 - 9/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 12.7 | 18.7 | 23.9 | 30.3 | 33.7 | 753 | 606 | 20.5 | 24.9 | 29.9 | 37.5 | 42.0 | 616 | 443 |
| Married Parents | 17.0 | 23.3 | 26.9 | 23.7 | 16.5 | 713 | 616 | 23.0 | 28.5 | 33.8 | 40.7 | 43.3 | 691 | 534 |
| 10/72 - 9/74 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 19.4 | 26.6 | 27.5 | 30.8 | 34.4 | 585 | 448 | 27.0 | 35.5 | 40.2 | 38.9 | 44.1 | 279 | 215 |
| Married Parents | 20.8 | 21.8 | 19.9 | 17.7 | 17.1 | 1481 | 1216 | 29.8 | 38.2 | 40.8 | 41.7 | 44.5 | 921 | 715 |
| Before 10/72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 20.6 | 28.0 | 28.9 | 30.0 | 33.4 | 128 | 98 | 36.7 | 37.1 | 35.8 | 39.6 | 40.2 | 21 | 17 |
| Married Parents | 13.6 | 16.0 | 17.2 | 18.5 | 19.2 | 824 | 658 | 37.9 | 42.0 | 40.8 | 41.2 | 44.2 | 192 | 130 |

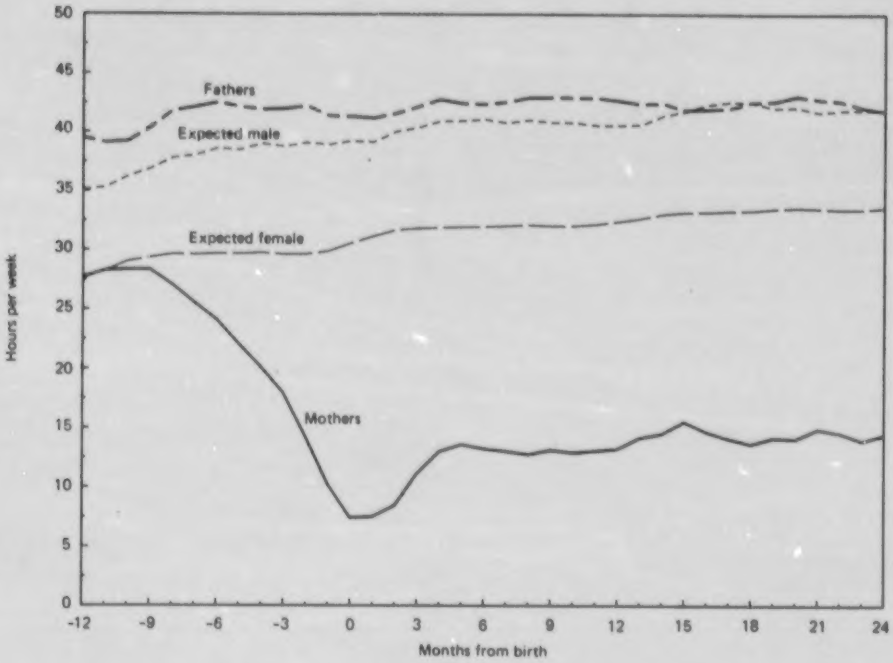

Fig. 5.4—Total hours worked per week, all respondents

1979 period, nonparents show a continual increase in weeks worked, so that they worked an average of 44 weeks in the year preceding the final follow-up compared with 24 weeks for married mothers and 31 weeks for unmarried mothers. This table also shows a small but steady increase in weeks worked in the years following the first birth for all groups of mothers. But this measure of work activity, like the others we have already examined, does not increase for married mothers to either the previous level or to the level shown by nonmothers by 1979. For unwed mothers, weeks worked declines relatively little and rises to its previous level within a year or two following the birth.

Our final measure of work activity for women is the number of employers over the previous year. This measure cannot be used with our individual effects methodology because it refers to the entire previous year rather than to a particular month. Thus, we analyzed only the average number of employers for each survey year, and we discuss these results briefly below without presenting the table on which they were based.

Our measure of number of employers depends on several factors. Those with no job have no employers, by definition. Workers could have more than one employer either by changing jobs or by working at two jobs simultaneously. Other analyses reported later in this chapter show extremely low rates of moonlighting for women, so we assume here that multiple employers reflect job changes. Women who bear their first child in a given year tend to have fewer

## Table 5.5

### NUMBER OF WEEKS WORKED IN THE PREVIOUS YEAR BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | Males | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample Size | | | | | | Sample Size | |
| Parenthood Status | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | |
| Single | 26.3 | 30.8 | 34.9 | 44.4 | 2292 | 2000 | 30.1 | 33.1 | 34.5 | 42.8 | 3077 | 2570 |
| Ever Married | 30.5 | 34.8 | 38.2 | 43.7 | 2494 | 2084 | 33.4 | 37.2 | 40.0 | 47.0 | 2137 | 1745 |
| Married Parents | 29.7 | 28.9 | 27.8 | 24.4 | 3277 | 2792 | 38.9 | 43.1 | 45.1 | 48.4 | 2260 | 1792 |
| After 9/76 | 32.4 | 36.6 | 38.3 | 24.3 | 1276 | 1132 | 37.1 | 40.6 | 43.5 | 48.6 | 1106 | 944 |
| 10/74 - 9/76 | 33.8 | 32.8 | 19.3 | 22.6 | 943 | 812 | 39.6 | 44.6 | 46.7 | 48.7 | 647 | 495 |
| 10/73 - 9/74 | 28.0 | 14.5 | 20.9 | 24.7 | 499 | 412 | 40.7 | 46.6 | 47.3 | 47.9 | 251 | 191 |
| 10/72 - 9/73 | 16.7 | 17.3 | 23.1 | 27.2 | 409 | 319 | 44.9 | 46.3 | 45.6 | 47.6 | 181 | 114 |
| Before 10/72 | 21.2 | 22.8 | 27.5 | 29.9 | 113 | 101 | 42.8 | 45.9 | 48.7 | 47.1 | 43 | 37 |
| Adoptive Parents | 30.5 | 30.8 | 33.4 | 25.6 | 72 | 70 | 38.8 | 44.5 | 45.0 | 48.2 | 158 | 131 |
| Unwed Parents | 24.2 | 24.6 | 27.6 | 30.8 | 625 | 432 | 32.8 | 37.9 | 38.3 | 46.0 | 351 | 209 |
| After 9/76 | 24.5 | 30.3 | 35.5 | 33.6 | 103 | 86 | 32.8 | 35.8 | 39.6 | 47.4 | 85 | 58 |
| 10/74 - 9/76 | 28.3 | 28.4 | 25.4 | 30.8 | 139 | 93 | 31.3 | 34.5 | 35.7 | 44.3 | 106 | 65 |
| 10/73 - 9/74 | 24.8 | 17.1 | 24.7 | 33.6 | 110 | 70 | 33.6 | 40.9 | 38.7 | 44.6 | 59 | 30 |
| 10/72 - 9/73 | 19.4 | 23.9 | 25.9 | 26.7 | 156 | 93 | 31.7 | 39.5 | 39.3 | 44.6 | 64 | 34 |
| Before 10/72 | 24.9 | 24.5 | 28.2 | 30.4 | 116 | 90 | 38.0 | 44.5 | 41.5 | 50.8 | 35 | 22 |
| Timing of first marriage: | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | |
| Nonparents | 28.6 | 33.1 | 37.7 | 44.0 | 1008 | 883 | 30.5 | 34.0 | 37.2 | 46.7 | 1158 | 1016 |
| Married Parents | 29.4 | 33.8 | 39.5 | 25.8 | 269 | 223 | 33.8 | 37.4 | 40.6 | 47.8 | 324 | 266 |
| 10/74 - 9/76 | | | | | | | | | | | | |
| Nonparents | 29.2 | 34.5 | 37.6 | 43.0 | 762 | 626 | 34.9 | 38.5 | 42.6 | 46.9 | 647 | 476 |
| Married Parents | 33.1 | 37.8 | 32.2 | 22.8 | 712 | 627 | 36.5 | 39.8 | 44.8 | 48.4 | 730 | 588 |
| 10/72 - 9/74 | | | | | | | | | | | | |
| Nonparents | 34.5 | 38.0 | 40.1 | 44.3 | 591 | 474 | 39.6 | 45.2 | 44.5 | 48.5 | 309 | 236 |
| Married Parents | 32.0 | 27.7 | 25.0 | 24.2 | 1480 | 1260 | 41.2 | 46.3 | 46.6 | 48.9 | 996 | 785 |
| Before 10/72 | | | | | | | | | | | | |
| Nonparents | 33.2 | 36.5 | 37.3 | 43.9 | 128 | 100 | 47.3 | 46.9 | 45.0 | 49.1 | 22 | 16 |
| Married Parents | 22.5 | 22.0 | 24.9 | 25.8 | 808 | 675 | 44.3 | 47.4 | 46.3 | 47.5 | 204 | 151 |

employers, on average, than they did in the previous year, and fewer employers than women who did not become parents. Much of this decrease in the average number of employers reflects the withdrawal from employment we saw in Fig. 5.1 over the course of pregnancy and following the birth. The fact that this measure combines the effects of job-leaving and job-changing clouds interpretation of the results. One might expect the first birth to increase the number of employers because of job changes following the birth. However, so few women return within the first year after the birth—and many of these probably remain at their previous jobs—that the percent changing employers is actually lower than before the first birth.

Taken together, the patterns presented above give us considerable information on how a first birth affects women's employment. First, the majority of women have jobs prior to pregnancy; most leave these jobs as the pregnancy progresses, so that only one woman in five remains employed in the month that the child is born. Following the birth, some women return to work, but our analyses show that employment rates only rise to about 60 percent of their previous levels. If these women had not become parents, our estimates suggest that the proportion employed would have steadily increased, and that the real employment deficit due to parenthood exceeds that implied by a before-after comparison. Our findings for changes in job-holding and for hours at work given employment show that the most important contributor to women's decreased work activity following parenthood is withdrawal from employment. Women who retain their jobs show some decline in hours at work, but on average work about 35 hours per week two years after the birth. These results suggest a division of the female population at first birth into those who retain their jobs—who show relatively high levels of work activity—and those who leave employment before the birth and work very little or not at all in the next two years.

### Men's Employment Activities

Previous research had led us to expect that parenthood has less effect on men's employment than on women's; the data bear this out. The right-hand panel of Table 5.1 shows the percentage of men holding jobs in each survey year according to marital status, timing of marriage, and timing of parenthood. Comparison of men's employment rates in the year before and the year following the first birth reveals little evidence of increased employment relative to other groups. New fathers do tend to be employed in increasing numbers from year to year, but the gains in employment are commensurate with those shown by other groups.

A somewhat different picture emerges when one compares employment rates of fathers with those of nonparents, both married and unmarried, within a single time period. Parents display consistently higher rates of employment than nonparents—although among married men the differences have all but disappeared by 1979. Considered by themselves, these differences between parents and nonparents could be taken as evidence of possible parenthood effects; however, the absence of any clear association with timing of parenthood is more consistent with the alternative hypothesis that the groups differ in other ways (e.g., educational activities) that would lead to higher employment rates for the fathers even in the absence of parenthood.

Figure 5.1 sheds more light on this possibility. It shows that employment rates among married fathers are consistently higher than would be expected given their characteristics and our knowledge of the relationship between those characteristics and employment among nonparents. Again, however, there is no evidence that this modest divergence from expected employment rates is associated with the timing of the first birth. The fathers' greater propensity for employment begins well before the child is born, making causal interpretation difficult. The elevated employment rates could reflect anticipatory parenthood effects, or unmeasured (or uncontrolled) differences in background characteristics, or even a selection effect based on the reverse of the causal pattern we are primarily interested in; i.e., other things equal, men who are employed may be more likely to assume the additional financial responsibility of parenthood.

Table 5.2 presents data that are comparable to those in Table 5.1, except that they indicate full-time employment. The pattern for men is very similar to the one observed for employment: The percentages increase over time for all groups, regardless of marital and parenthood status. There is no consistent evidence of jumps in full-time employment rates around the time of parenthood. In cross-sectional comparisons, fathers are consistently more likely to have full-time jobs than nonparents with the same marital status, but these differences predate parenthood by several years.

Inspection of the plots for married men shown in Fig. 5.2 corroborates the impression given by the percentages in Table 5.2. At every point from 12 months before the first child is born to 24 months after, married fathers are more likely to hold a full-time job than one would predict on the basis of their characteristics. However, there is no evidence that this overall greater likelihood of holding a full-time job increases just before or just after the birth of the child. Thus, the data can be explained in a variety of ways and do not point strongly to parenthood effects.

Table 5.3 and Fig. 5.3 present data on the average number of hours worked per week among those who are employed. This measure reflects not only full-time versus part-time employment, but also overtime and moonlighting activities. The results for men show steady increases across survey years in the average number of hours worked, from less than 40 hours per week in 1972 to substantially more than 40 hours in 1979. At any given time, fathers work more hours than childless men do. However, as with the other measures, there is no evidence in either the table or the figure that the increases in number of hours worked per week concentrate around the time of parenthood. Comparison of the plots for actual and estimated expected outcomes in the figure does reveal a tendency for the plots to converge over time. That is, one year before the first child is born, fathers-to-be work about 2.5 hours more per week than we would expect on the basis of their characteristics. Over time, this difference gradually shrinks, and by the time the baby is 24 months old, fathers work the predicted number of hours. Such a pattern is consistent with the hypothesis that some married men work extra hours in anticipation of the financial demands of pregnancy and parenthood. However, the pattern is by no means uniquely consistent with that hypothesis, and in any case the differences in hours worked are quite small relative to those observed for women.

Table 5.4 and Fig. 5.4 summarize data on average hours worked for all NLS respondents, including those who are not employed (and whose hours worked are therefore coded as zero). Results for men are essentially the same as for hours worked among the employed, except that the differences in Fig. 5.4 between married parents' observed and predicted outcomes one year prior to the birth of the child are somewhat sharper.

Our measure of hours worked calculated across the entire sample is the most general measure we have of time spent in paid labor market activity at the survey reference point, summarizing as it does the effects of employment, full-time versus part-time employment status, moonlighting (multiple job holding), and overtime. We examined results for each of these "components" of overall employment activity separately. We have already reported on men's employment status and on full-time versus part-time employment. For multiple job holding, we find no systematic indication of parenthood effects for either men or women. For overtime, however, there are clear indications of parenthood effects on married men. Figure 5.5 plots the percentages of all employed married parents (of both sexes) who reported working over 48 hours per week. The figure shows two sharp increases in the percentage of married men working overtime: One occurs six or seven months before the birth (at about the time a pregnancy would be confirmed); the second occurs three to six months after the birth. Although both increases are short-lived, the pattern suggests that parenthood alters men's employment behavior. Very possibly, some men who feel additional financial pressure as a result of recent or impending fatherhood are temporarily more likely to accept (or seek) opportunities to work overtime.

For the two measures of employment that refer to the previous year, number of weeks worked and number of employers, we again find, in analyses not presented here, differences between fathers and nonfathers, but as with most of our other employment measures, the differences appear quite consistent over time and are not associated in any obvious way with the timing of parenthood. With respect to number of weeks worked, the trend for the entire cohort of NLS men is one of steady increase over time. Parents show the same pattern. With respect to number of employers, the trend for the cohort is a steady decrease over time, presumably reflecting lower rates of job-changing, lower rates of moonlighting, or both. Although fathers are in the vanguard with respect to both trends, there is little in the pattern for either measure that suggests consistent parenthood effects in either direction.

Overall, our analyses indicate that the effects of parenthood on men's employment activities are much smaller than they are for women. Consistent with our expectations and with prior research, those differences that do appear are in the opposite direction from those found for women; if anything, parenthood tends to increase men's employment activities.

It may be that one reason we observe small effects of parenthood on men's employment activities is that their level of activity is already high, leaving little room for further increases. In 1979, for example, 94 percent of the male NLS respondents who held jobs were working full-time, 13 percent held two or more jobs, and 33 percent reported working overtime. Married men were especially active. Although employment activity in earlier years of the survey was

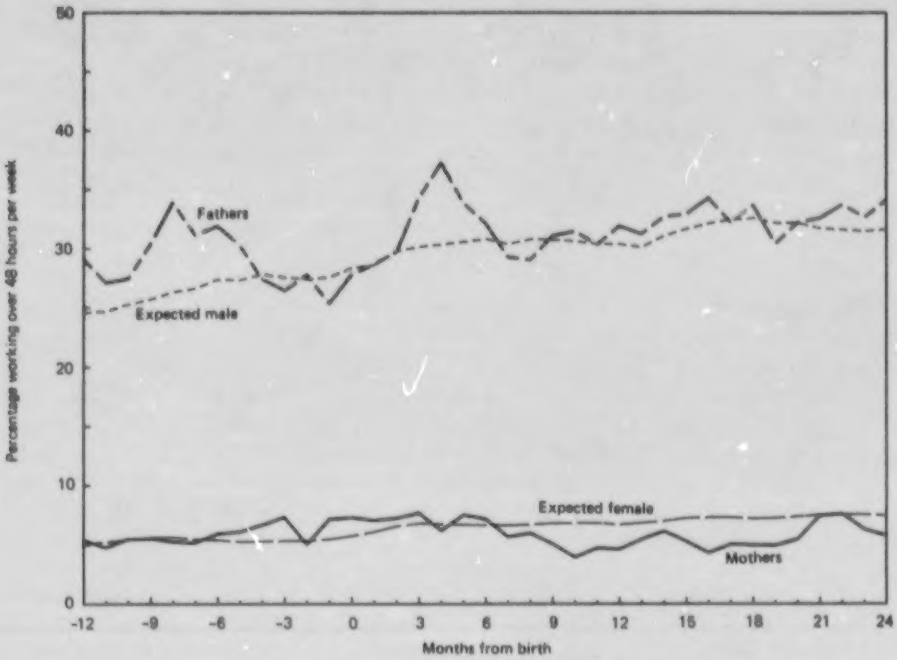

Fig. 5.5—Proportion of workers working over 48 hours per week

somewhat lower, most of the men in the NLS who were not employed full-time were enrolled in school. Given the extent of most fathers' pre-parenthood employment activities, it seems unlikely that we would observe sizeable increases in activity in response to parenthood. One might expect, however, that the arrival of a first child might *reduce* fathers' time at work around the time of the birth because of the demands of care for a convalescing wife and newborn. We see no evidence of this in our analysis. Although NLS data do not permit us to match labor force behavior of the wife and husband, it would be interesting to know how the wife's withdrawal from or continuation in the labor force at the first birth affects the husband's labor supply.

Despite the general absence of noticeable short-term responses to parenthood, fathers demonstrate consistently more activity in their jobs than nonfathers do. The differences, however, appear long before the fathers become parents. This could indicate the existence of long-term anticipatory effects of parenthood such that men who especially want children work harder in order to earn more money. Alternatively, it is also possible that employment affects the timing of parenthood; that is, men who work harder have higher incomes, making it more likely that they will choose to have children sooner rather than later. Although each of these explanations is consistent with the data, we find the second one more plausible. One reason is that aside from some temporary increases in overtime activity, the data show very little evidence of short-term anticipatory effects, and we think it unlikely that young people would modify their employment behavior in accordance with long-term parenthood plans without also modifying their behavior when parenthood is much closer.

Although we favor the hypothesis that employment activity and income affect timing of parenthood, the analyses we have carried out do not test this possibility. That would require an entirely different research approach and is not the focus of the current study.

## CONCLUSIONS

We summarize our findings on the consequences of parenthood for the labor market activities of young adult men and women by answering the questions we asked earlier.

*First, how does the employment status of women change around the time of the first birth?* We find that the majority of women hold paid jobs prior to pregnancy, but that they begin to leave work at the time of conception so that by the month of the first birth only about 22 percent still hold a job. Following the birth many women return to employment, but by the time the child is two years old, mothers' employment rates have reached only 60 percent of their previous levels.

In the absence of parenthood, we estimate that these women would have increased their employment rate to about 85 percent, so that the actual deficit from the first birth was about 10 percentage points greater than the simple before-after comparison would suggest.

*What part of employment change reflects moves out of paid work entirely, what part a reduction in hours on the job?* Our analysis shows that most of the reduction in work effort results from complete withdrawals from the labor force; those mothers who remain employed reduce their hours at work only from about 38 to about 35 hours per week, on average. In the absence of the birth, we estimate that these women would have worked about 39 hours per week.

*What percentage of mothers continue to work full-time over the period surrounding the first birth?* About 20 percent remain employed throughout pregnancy and the birth of the first child. Fully 80 percent of those employed prior to and up to three months after the birth work full-time, with the figure falling to 65 to 70 percent by nine months after the birth, as some mothers return to their jobs part-time or take new jobs that allow part-time work. We estimate that in the absence of parenthood, the proportion of women working full-time would have remained relatively constant over the period.

*How are women's average hours of work affected by childbirth?* When one considers work effort of women who remain in and women who leave the labor force, one sees a large and sustained drop in average work effort around the first birth. From a prepregnancy average of about 28 hours per week, hours at work fall to about 7 or 8 per week in the month of the birth, rising to only about 15 hours per week by two years later. But as the results above indicate, this average masks two distinct patterns followed by women—one reflecting complete withdrawal from the labor force, and one continued employment at virtually the previous levels. If these women had not become mothers, we estimate that the average hours would have remained fairly stable over this period.

*How does men's employment respond to parenthood?* Fathers show higher levels of work activity on virtually all our measures than we would expect in the absence of the first birth, but this "parenthood effect" predates the pregnancy by a substantial amount. We reason that men who work hard may, as a result, be able to undertake the demands of fatherhood somewhat earlier than other men, and that timing of parenthood responds to rather than determines work effort.

*Through what channels do men's employment activities respond to parenthood?* We see evidence of consistent parenthood effects for men only for our measure of very long work-hours. The percentage of men working 48 hours a week or more rises significantly during pregnancy and again shortly after the birth, perhaps reflecting financial pressures on the new father. Fathers show higher proportions employed, longer hours of work, and more moonlighting than comparable childless men, but these differences show no relationship to the timing of the first birth.

Our analysis has clarified a number of points raised by previous studies. First, we see that the effects of parenthood on women's work effort are not universal, but are restricted to a subgroup of women who leave work before the first birth. Those who remain at work, an important minority, show few parenthood effects on their commitment to work. Second, men show only small parenthood effects on average, although our results suggest that employment might affect the timing of men's entry into fatherhood. We suggest that future research explore these issues by attempting to determine the characteristics or career experiences of women who leave employment versus those who remain given a birth, and by examining how the nature and extent of men's (and women's) employment affects the timing and likelihood of parenthood.

## Chapter 6

# JOB AND CAREER CHARACTERISTICS AND EXPECTATIONS

## INTRODUCTION

This chapter assesses the effects of parenthood on the characteristics of the jobs held by young adult males and females. It also examines expectations for future work and the ways these expectations respond to the first birth. We examine parenthood effects on occupational status, homemaking, hourly and weekly earnings, career expectations (including expectations for a professional occupation and for being a full-time homemaker), and various characteristics of the job held.

### Occupational Status

A long tradition of research in status attainment shows that, despite the existence of occupational segregation by sex, women and men tend to have jobs with similar levels of occupational status, which they acquire through similar processes (Treiman and Terrell, 1975; McClendon, 1976). Yet, women's wages fall substantially below men's, even when one compares full-time, full-year workers with similar amounts of education and work experience, in occupations with similar status (Rosenfeld, 1980; Treiman and Hartmann, 1981).[1] Researchers tend to attribute this wage gap to women's greater commitment to family than to job (Mincer and Polachek, 1974; Polachek, 1979), to discrimination against women in the labor market, or to other differences in characteristics of male and female workers or their jobs (Blau, 1977; Lloyd and Niemi, 1979). Women's commitment to family first, to the extent that it exists, might lead them to withdraw from the labor force temporarily or permanently in order to bear and raise children, to plan for and enter an occupation that combines easily with family responsibilities but pays poorly, or to forgo a job with heavy responsibilities and good prospects for advancement because it conflicts with childcare (Polachek, 1979; Broschart, 1979; Darian, 1975)

The research literature on women's occupational attainment shows divergent effects of presence and ages of children on the status of their mother's occupation. Some studies suggest that the number and age distribution of a woman's children have little or no effect on the status associated with her job (Rosenfeld, 1980; Fligstein and Wolf, 1978; McClendon, 1976); others find that children affect occupational status only through their effect on work experience (Rosenfeld, 1978); still others imply a direct reduction in occupational status with increasing family size (Marini, 1980; Sewell et al., 1980). Some of this disparity in findings is attributable to different samples and foci; none of the studies examining the effects of number of children on *current* occupational status show any effect (Fligstein and Wolf, 1978; McClendon, 1976), but several report that family size negatively affects *gain* in status (Marini, 1980; Sewell et al., 1980; Rosenfeld, 1978). Sorensen (1983) concludes that a woman's family responsibilities—as indexed imperfectly by number of children—affect her occupational status when she returns to the labor force after an absence but do not affect improvements in status from that point on.

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[1] Smith and Ward (1984) found that women's wages were 60 percent of those of men in 1980, but that the figure rose rapidly to 64 percent by 1984—an increase that, in view of past history, the authors call "dramatic."

Men's occupational status appears to respond to parenthood and family size differently from women's; family size appears to have little influence on the status of a man's job, but being married has a significant, positive effect (Rosenfeld, 1980). Several researchers suggest that marital status and parenthood might act as a screening device for employers when considering job applicants; married fathers may represent more stable and deserving employees than unmarried or childless men, whereas married mothers may be viewed as likely to leave the job or to be undependable workers because of family commitments. "Family men" may also be seen by employers as having incentives to hard work and career advancement for the sake of their wives and children. And, in fact, employers may be right; marriage and impending or actual fatherhood may affect men's job behavior. After marriage, young men are less likely to be unemployed (U.S. Department of Commerce, 1984: S-10), a fact that may reflect changes in their behavior or that of their employers in response to their altered family status. Alternatively, couples may wait to marry until the man earns enough for them to live on, or wait to have children until they consider their income sufficient to pay the money costs of parenthood.

## Earnings

Although it is unclear whether family size influences women's occupational attainment, most research shows either that family size is negatively associated with women's earnings (McClendon, 1976; Hudis, 1976; Treiman and Terrell, 1975) or that it has no effect at all (Rosenfeld, 1980). Women with children may exchange pay for convenience in choosing jobs, especially if they are married. They may decrease hours at work, thereby decreasing earnings. They may forgo training because they do not expect to work long enough to receive an adequate return on their investment. And the presence of children may increase financial pressure on women, making time spent on schooling an investment too large for them to make. Alternatively, unmarried mothers may maximize earnings because of the pressure to support themselves and their children. Hudis (1976, 1977) concludes that mothers not currently married, and black women of any marital status, tend to choose occupations that lead to higher wage returns on their human capital than do white and married women, presumably because the latter two groups have access to more financial support from sources other than their own earnings than the former two groups. Because this research considered only employed women, the results may be affected by selection of women into worker-nonworker status because of their access to particular occupations.

Marriage and fatherhood tend to be associated with increased earnings for men, although most analyses compare earnings according to the number of children or dependents rather than examining the earnings of men who have any children versus those who have none (Rosenfeld, 1980; Treiman and Terrell, 1975; Blau and Duncan, 1972). Of course, differences in earnings at one point between married and unmarried men or between men with different numbers of children do not necessarily indicate a causal connection. For example, the positive "effect" of marriage on earnings observed in cross-sectional analyses may result from increased incentives or from the improved marriage chances of the men with the highest earnings. And the relatively small incremental effect of an additional child may mask a large (or very small) effect of parenthood on earnings. In one of the few longitudinal studies of the effect of parenthood on earnings, Cramer (1979b) finds that men with at least one child who have an additional child during the survey period show significantly increased earnings, primarily as a result of more hours at their regular job.

## Occupational Attitudes and Earnings

Besides affecting the status or prestige of men's and women's jobs, parenthood or its anticipation may alter women's preferences, aspirations, and plans for future career paths. Indeed, it is often argued that sex differences in wage rates largely reflect the *choice* many women make to work at jobs that pay less but allow them to combine work and motherhood. The choice to trade off job or career considerations against family considerations may be made at any of several times; for some, it may be when they first begin to think about their adult futures, whereas for others it may be when they are faced with a job, marriage proposal, or pregnancy. Still others may modify job or career plans only after a child arrives and they realize how demanding infants and young children can be.

The foregoing arguments suggest that a first birth will affect men's and women's labor force activities differently. Occupational status and wages will tend to decline for women who remain employed around the time of parenthood, especially those married at the time of the birth, since married women have greater freedom to trade status and wages for other attributes such as convenience with respect to childcare. In contrast, these arguments suggest that men's status and wages will rise, along with their aspirations, around the time of parenthood, for several reasons. First, it may be that parenthood increases men's commitment to their jobs but decreases women's commitment. Second, parenthood may be interpreted by employers as a positive indication of male workers' stability, whereas for female workers it is interpreted negatively. Third, many women may knowingly choose jobs lower in pay or status than they could otherwise obtain because these jobs allow them to combine work and childcare.

In other respects, men and women may respond to a first birth in similar ways—or at least in ways that are more complex than is suggested by a perspective based on traditional sex roles. For example, men who become fathers prior to age 25, as do those in our analysis, may trade occupational status for immediate income because of the financial pressures that come from having an additional dependent. For the same reasons, they may choose jobs with higher short-run earnings over jobs with better prospects for long-term wage growth. And fathers, as well as mothers, may increase their interest and commitment to time spent with the family when they become parents, displaying relatively less interest in their job or their career progress.

One observes job characteristics only for the employed. Women who remain at their jobs during pregnancy and following childbirth, or who return to employment within two years of their first birth, are those most committed to labor market activity. This commitment could arise from financial need, taste for employment, or the demands of a career that punishes withdrawal from the labor force. These women would be the least likely of any employed mothers to sacrifice job attainment for convenience, since these are also the women most likely to plan on a substantial amount of future employment. The greater the amount of future employment expected, the greater the cost of wage or status losses bartered for the intense but relatively temporary demands of a young child.

## MEASURES OF JOB AND CAREER CHARACTERISTICS AND EXPECTATIONS

Our analysis of the effects of parenthood on job characteristics uses a number of measures of the type of jobs held during the period prior to and after the first birth. The Duncan Socioeconomic Index, also called the Duncan SEI, measures the status of the occupation held. This index, described in detail in Blau and Duncan (1967), ranges in theory from a low score of 1 to a high score of 99, although the actual range is somewhat smaller. The Duncan SEI includes only the occupations included in the Census detailed occupational classification; it excludes housewife, student, and other roles not considered occupations within the Census classification scheme. We chose this index over other measures of occupational status because of its familiarity to researchers in a number of disciplines (Hauser, 1971). We include two measures of wage attainment: hourly wage rate on the main job and total weekly earnings at all jobs. Along with the Duncan SEI index, they are available for all survey years. We also include four measures of job characteristics available only in 1976 and 1979, or only in 1979. These include: whether the person has a supervisory position; the number of employees supervised; a scale of the employee's independence in this job; and the number of miles the person travels to work. All of these but miles to work are available for both 1976 and 1979; the latter measure was included only in the 1979 interview.

This chapter also examines parenthood effects on several measures of work expectations: an index of the occupational category in which the respondent expects to work, an indicator of whether the person expects to enter an professional occupation, and an indicator of whether a female respondent expects to be a full-time homemaker. In addition, for females only, we examine two measures of the extent of homemaking as an occupation.

## RESULTS

### Women's Job Characteristics and Expectations

First, we assess the extent to which the occupational status of the jobs held by employed women changes as a result of parenthood. Table 6.1 presents the mean Duncan SEI scores for women who became mothers at various times, by marital status and timing of marriage, along with means for married and single mothers. For example, married mothers who had their first child from October 1973 to September 1974 had a mean Duncan SEI score of 36 in the earlier year, and a mean of 36 in the later year. From that point, the average occupational status of their jobs rose gradually but steadily. The reader should keep in mind that these results apply only to employed women, as do most other measures of job characteristics. Thus, some proportion of the changes observed are due to changes in the sample of employed women.

Comparisons of occupational status before and after the first birth for women who had a first child during other periods, say 1974 to 1976 or 1976 to 1979, also show about the same mean status after as before the birth. These comparisons suggest that parenthood has little influence on occupational status for women who remain at work, perhaps because labor force withdrawal is not selective of women with particularly high or low occupational status. However, comparisons for unwed parents show consistent growth in occupational status from before to after the first birth. For example, unmarried women who had their first child between 1976 and 1979 showed a mean occupational status score of 43 in the earlier and 47 in the later year. Moreover, examination of marriage cohorts shows substantially lower occupational status for parents than nonparents in every cohort. Finally, both married and unmarried mothers have jobs with lower occupational status than nonparents, whether married or single, in all years; the occupational advantage of nonparents increases from 1972 to 1979, presumably as more nonparents finish advanced schooling and enter the labor force, and as some advance from lower- to higher-status occupations.

These comparisons cannot tell us whether the lower occupational status of mothers' jobs results from the fact that the mothers had children or from other choices they made or characteristics they possessed. Figure 6.1 speaks to this issue by comparing time series of mean occupational status scores of women who became parents with their estimated expected status scores in the absence of parenthood. This figure shows that the average status of the jobs held by women who remain in the labor force changes little during pregnancy, but that following the birth, status scores decline slowly from their level prior to the birth. By two years after the birth, mothers have jobs about six points lower in status than they would have had, we estimate, if they had not become parents. The gradually increasing differential between expected and actual status reflects an actual decline in the average status of mothers' jobs (reflecting job changes and selective withdrawals of women from the labor force) combined with the small increase that we estimate would have occurred in the absence of parenthood. Indeed, the size of the actual decline just about matches the size of the expected increase.

Our regression results for nonparents suggest that the effects of marriage on women's occupational status run in the opposite direction from those of

## Table 6.1

## DUNCAN SEI SCORE FOR THE PRIMARY OCCUPATION BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 35.6 | 39.4 | 40.2 | 46.6 | 52.9 | 1434 | 586 | 24.0 | 27.1 | 29.2 | 37.6 | 46.8 | 1884 | 944 |
| Ever Married | 37.6 | 40.8 | 43.1 | 48.9 | 53.6 | 1697 | 803 | 24.7 | 27.7 | 30.1 | 38.7 | 49.0 | 1470 | 739 |
| Married Parents | 35.1 | 38.7 | 40.3 | 43.1 | 43.6 | 1792 | 1274 | 24.1 | 25.6 | 28.1 | 33.3 | 38.7 | 1748 | 965 |
| After 9/76 | 36.3 | 40.3 | 41.7 | 46.9 | 46.7 | 820 | 482 | 24.3 | 26.6 | 29.3 | 35.1 | 42.3 | 825 | 429 |
| 10/74 - 9/76 | 34.7 | 38.8 | 41.5 | 40.2 | 42.0 | 503 | 366 | 24.8 | 25.3 | 27.6 | 32.5 | 35.2 | 512 | 289 |
| 10/73 - 9/74 | 34.6 | 36.4 | 35.7 | 38.4 | 41.7 | 218 | 151 | 23.3 | 24.5 | 26.1 | 30.1 | 34.0 | 203 | 126 |
| 10/72 - 9/73 | 34.3 | 33.6 | 35.9 | 36.6 | 39.6 | 178 | 130 | 21.9 | 23.4 | 26.7 | 31.8 | 33.1 | 145 | 86 |
| Before 10/72 | 34.0 | 35.4 | 32.8 | 39.4 | 45.0 | 54 | 24 | 26.1 | 25.9 | 26.8 | 32.5 | 33.6 | 37 | 19 |
| Adoptive Parents | 26.6 | 32.7 | 37.0 | 42.7 | 43.0 | 44 | 25 | 21.9 | 24.0 | 29.5 | 34.0 | 36.8 | 118 | 60 |
| Unwed Parents | 31.9 | 34.0 | 35.5 | 38.6 | 39.4 | 334 | 214 | 25.3 | 25.1 | 24.7 | 29.3 | 36.7 | 241 | 136 |
| After 9/76 | 31.5 | 36.3 | 36.2 | 43.2 | 46.8 | 65 | 41 | 26.3 | 22.6 | 22.4 | 27.7 | 33.3 | 60 | 36 |
| 10/74 - 9/76 | 32.8 | 34.4 | 35.8 | 37.1 | 38.2 | 77 | 46 | 25.8 | 26.0 | 24.6 | 26.6 | 39.7 | 71 | 38 |
| 10/73 - 9/74 | 28.4 | 31.4 | 34.1 | 37.8 | 34.9 | 52 | 36 | 26.0 | 25.2 | 25.3 | 31.7 | 35.1 | 41 | 22 |
| 10/72 - 9/73 | 34.7 | 33.5 | 36.7 | 36.8 | 36.9 | 74 | 53 | 24.4 | 27.4 | 25.5 | 34.8 | 41.8 | 43 | 24 |
| Before 10/72 | 30.7 | 33.3 | 34.0 | 38.2 | 39.8 | 65 | 38 | 22.4 | 23.8 | 27.8 | 28.2 | 32.3 | 25 | 16 |
| Timing of First marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 38.1 | 39.5 | 41.2 | 48.8 | 55.3 | 664 | 286 | 24.7 | 28.2 | 30.4 | 40.2 | 51.5 | 738 | 358 |
| Married Parents | 37.6 | 39.7 | 39.1 | 46.9 | 46.5 | 167 | 86 | 23.3 | 24.9 | 28.0 | 34.0 | 42.6 | 220 | 118 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 37.0 | 40.6 | 44.1 | 51.0 | 54.3 | 506 | 217 | 24.9 | 27.2 | 29.9 | 37.6 | 46.6 | 472 | 244 |
| Married Parents | 33.9 | 39.2 | 40.9 | 46.9 | 46.4 | 442 | 268 | 23.6 | 26.1 | 28.3 | 34.8 | 41.2 | 546 | 282 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 37.7 | 42.3 | 44.7 | 46.9 | 50.1 | 431 | 247 | 23.9 | 26.8 | 30.1 | 36.5 | 43.8 | 240 | 128 |
| Married Parents | 35.2 | 39.1 | 41.4 | 42.3 | 42.7 | 797 | 650 | 25.0 | 25.8 | 28.1 | 32.4 | 36.6 | 805 | 458 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 37.0 | 42.9 | 43.8 | 46.5 | 50.0 | 91 | 51 | 26.3 | 28.9 | 29.0 | 31.0 | 41.8 | 18 | 9 |
| Married Parents | 35.4 | 36.8 | 38.0 | 37.9 | 41.9 | 378 | 233 | 22.7 | 24.2 | 28.1 | 31.6 | 34.4 | 170 | 103 |

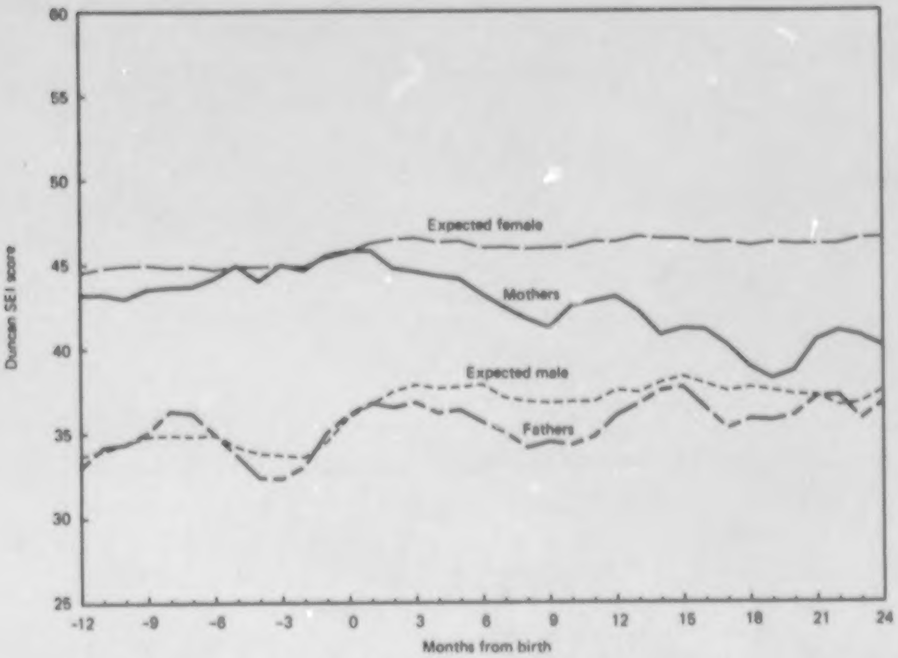

Fig. 6.1—Duncan SEI score for primary occupation

parenthood. That is, when other factors are controlled, the average occupational status scores of married women are about two points higher than those of single women (see App. B, Table B.6). However, there is also a negative coefficient for length of marriage, which suggests that marriage may have different effects on women's careers at different stages of the marriage—at first providing additional impetus for occupational attainment, but later providing a lower level of incentive than that experienced by single women. Because our regression equations include the year of the observation and the NLS represents a single cohort, our results for age at marriage implicitly control for current age. However, married women and mothers are less likely to work than single women, so these results are affected to some extent by selection into the labor force. These results, like those for parenthood depicted in Fig. 6.1, suggest that women do make accommodations in their career choices as a result of their family responsibilities. The process by which this occurs, however, may be a gradual one; there is no evidence of abrupt change in response to specific family formation events.

Do declines in wage rates accompany these declines in occupational status? Table 6.2 shows hourly wage rates in current dollars, by timing of marriage and parenthood. This table shows steady gains in hourly wage rates from 1972 to 1979 for both married and unmarried mothers; those who bore a first child between 1976 and 1979, for example, received $3.76 per hour in the earlier year

## Table 6.2

### HOURLY WAGE RATE FOR THE PRIMARY OCCUPATION BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 2.19 | 2.43 | 2.74 | 3.78 | 5.36 | 1444 | 914 | 2.53 | 2.90 | 3.30 | 4.24 | 6.15 | 1958 | 1523 |
| Ever Married | 2.09 | 2.34 | 2.84 | 3.76 | 5.43 | 1723 | 1246 | 2.59 | 3.03 | 3.49 | 4.63 | 6.79 | 1523 | 1186 |
| Married Parents | 2.11 | 2.46 | 2.76 | 3.53 | 4.67 | 1795 | 1386 | 2.65 | 3.19 | 3.79 | 4.78 | 6.95 | 1836 | 1564 |
| After 9/76 | 2.06 | 2.44 | 2.80 | 3.76 | 5.00 | 819 | 540 | 2.64 | 3.15 | 3.68 | 4.81 | 7.04 | 856 | 697 |
| 10/74 - 9/76 | 2.02 | 2.41 | 2.79 | 3.35 | 4.53 | 506 | 359 | 2.49 | 3.17 | 3.77 | 4.71 | 6.68 | 542 | 454 |
| 10/73 - 9/74 | 2.32 | 2.70 | 2.61 | 3.22 | 4.45 | 222 | 136 | 2.87 | 3.45 | 4.00 | 4.86 | 7.03 | 218 | 177 |
| 10/72 - 9/73 | 2.23 | 2.39 | 2.66 | 3.27 | 4.26 | 178 | 146 | 2.78 | 3.05 | 4.11 | 4.83 | 7.33 | 157 | 102 |
| Before 10/72 | 1.84 | 2.23 | 2.40 | 3.17 | 4.85 | 53 | 33 | 3.01 | 3.40 | 4.07 | 4.72 | 6.70 | 39 | 34 |
| Adoptive Parents | 1.96 | 2.18 | 2.57 | 3.37 | 5.77 | 44 | 34 | 2.59 | 3.03 | 3.75 | 4.43 | 6.65 | 129 | 103 |
| Unwed Parents | 2.25 | 2.60 | 2.84 | 3.35 | 4.46 | 333 | 272 | 2.75 | 3.47 | 3.71 | 4.56 | 6.32 | 254 | 182 |
| After 9/76 | 2.12 | 2.68 | 2.63 | 3.36 | 4.26 | 66 | 50 | 2.52 | 3.48 | 3.94 | 4.35 | 6.60 | 61 | 47 |
| 10/74 - 9/76 | 2.43 | 2.27 | 2.79 | 3.05 | 4.71 | 75 | 60 | 2.75 | 3.35 | 3.52 | 4.44 | 6.56 | 71 | 53 |
| 10/73 - 9/74 | 1.89 | 2.87 | 2.95 | 3.29 | 4.63 | 52 | 47 | 2.73 | 4.02 | 3.46 | 4.26 | 5.98 | 44 | 24 |
| 10/72 - 9/73 | 2.41 | 2.79 | 2.85 | 3.43 | 4.64 | 73 | 57 | 2.68 | 3.12 | 4.35 | 4.72 | 5.86 | 48 | 31 |
| Before 10/72 | 2.28 | 2.56 | 3.00 | 3.59 | 4.09 | 66 | 50 | 3.25 | 3.67 | 3.19 | 5.51 | 6.04 | 29 | 21 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 2.05 | 2.33 | 2.84 | 3.82 | 5.62 | 680 | 462 | 2.46 | 2.95 | 3.35 | 4.50 | 6.79 | 769 | 567 |
| Married Parents | 2.07 | 2.30 | 2.71 | 3.75 | 5.05 | 168 | 99 | 2.85 | 3.13 | 3.53 | 4.62 | 6.81 | 235 | 196 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 2.14 | 2.30 | 2.82 | 3.81 | 5.42 | 514 | 354 | 2.76 | 3.05 | 3.55 | 4.84 | 6.85 | 487 | 401 |
| Married Parents | 1.98 | 2.46 | 2.92 | 3.72 | 5.02 | 443 | 302 | 2.49 | 3.05 | 3.74 | 4.73 | 6.96 | 570 | 454 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 2.12 | 2.41 | 2.91 | 3.65 | 5.17 | 433 | 352 | 2.62 | 3.16 | 3.77 | 4.62 | 6.75 | 245 | 200 |
| Married Parents | 2.09 | 2.52 | 2.77 | 3.42 | 4.50 | 799 | 623 | 2.63 | 3.25 | 3.82 | 4.80 | 6.92 | 843 | 726 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 1.99 | 2.32 | 2.73 | 3.50 | 4.96 | 93 | 75 | 2.40 | 3.28 | 3.23 | 4.67 | 5.65 | 19 | 16 |
| Married Parents | 2.31 | 2.40 | 2.55 | 3.41 | 4.56 | 377 | 321 | 2.90 | 3.33 | 4.17 | 5.06 | 7.32 | 182 | 138 |

and $5.00 per hour in the later year if married, compared with $3.36 and $4.26 if unwed. No pattern of wage advantage appears for married or unmarried mothers who had a first birth at about the same time. If women who have a first birth while unmarried try to maximize wage rates more than married women do, as some researchers have suggested, then either they are not successful, their personal characteristics tend to result in their receiving lower wage increases than married mothers, or married mothers with low wages stop working more readily than their unmarried counterparts. Comparisons of female parents and nonparents in marriage cohorts in the bottom panel of Table 6.2 show consistent wage deficits for mothers, perhaps resulting from these women's job choices, perhaps from job or pay assignments by employers. In all survey years, women who became parents during the survey period show lower hourly wage rates than women who delayed parenthood. In 1979, ever-married nonmothers and single nonparents receive the highest average wage rates, followed by married mothers and unwed mothers. Some portion of this difference is due to the personal characteristics of these various groups of women. We ignore here the tiny group of adoptive parents. Among marriage cohorts, those women who delayed marriage most receive the highest wage rates if they also delayed parenthood and lower average wages if they had a child.

Figure 6.2 shows estimates of how much women who had a birth would have earned per hour in the absence of parenthood, compared with their actual wage

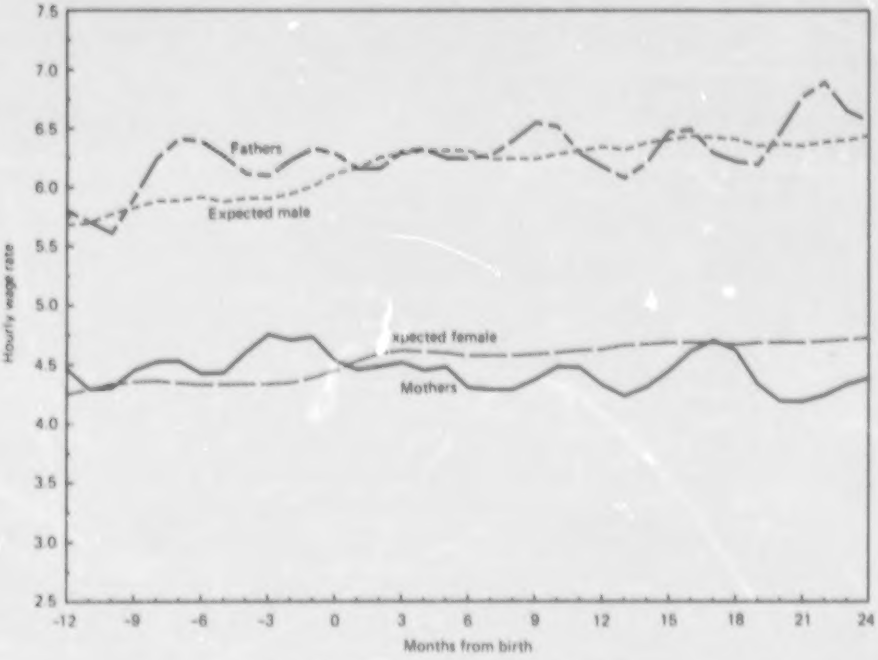

Fig. 6.2—Hourly wage rates, 1979 dollars

rates. All amounts shown are in 1979 dollars, as were the amounts entered in the underlying regression analysis whose results are presented in App. B. This figure shows the same upward trend in both actual and expected earnings that we observed in Table 6.2. During pregnancy, women earn somewhat more than we would otherwise expect, whereas following the birth they earn slightly less. These differences are modest, suggesting that much of the difference in wage rates between parents and nonparents that we observed in Table 6.2 resulted from differences in the characteristics of those who became parents and those who did not. For example, the NLS women who had a first birth between 1972 and 1979 had lower academic ability and achievement on average than those who delayed a first birth past 1979.

Table 6.3 presents mean total weekly earnings on all jobs, in current dollars, allowing us to assess the combined effects of the somewhat lower hourly wage rates just discussed and the decreased weekly hours for mothers that we noted in Chap. 5. This table shows much the same pattern in total weekly earnings as Table 6.2 showed for hourly wage rates; weekly earnings rise steadily from 1972 to 1979. Weekly earnings rise over time for both married and unwed mothers, including increases following a first birth, whatever its timing. But nonmothers have higher earnings than mothers, and this generalization holds within marriage cohorts. Mothers also experience substantially smaller increases in total earnings from the year before to the year after the first birth than do women who did not have a child in that same period. Figure 6.3 gives actual weekly earnings (in 1979 dollars) for mothers compared with their estimated expected earnings if they had not become parents. This figure shows a slightly stronger version of the pattern we saw in Fig. 6.2 for hourly wage rates. Expected and actual earnings tend to remain the same until just after the first birth, when actual earnings decline and expected earnings continue to rise slightly. By the time the child becomes two years old, employed mothers earn about $35 per week less in 1979 dollars than we estimate they would have earned if they had not had that birth.

The sizeable average negative effects that parenthood has on women's weekly earnings contrast sharply with the more modest *positive* effects that we estimate for marriage. The size and direction of these latter effects are best estimated by our regression equation for ever-married nonparents, given in App. B, Table B.8. These regression results indicate that, other things equal, married women earn about $10 more per week than single women. The advantage is greater for recently married women than for those who have been married a long time.

The fact that the negative effects of parenthood on women's earnings occur against the backdrop of positive marriage effects makes it extremely unlikely that the parenthood effects are attributable to marriage. Instead, the results indicate that these two family formation variables are associated with quite distinct earnings patterns.

*Job Characteristics.* The NLS data contain several other indicators of the characteristics of the jobs women hold before and after their first birth. Tables 6.4 and 6.5 give the percentage of women in supervisory positions, the average number of employees supervised, mean values on a scale of job independence (measuring the closeness with which the employee is supervised), and mean

## Table 6.3

### TOTAL EARNINGS PER WEEK FOR JOBHOLDERS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 56 | 69 | 88 | 134 | 216 | 1369 | 831 | 80 | 98 | 118 | 165 | 263 | 1821 | 1353 |
| Ever Married | 61 | 75 | 96 | 140 | 215 | 1642 | 1161 | 86 | 105 | 131 | 192 | 298 | 1419 | 1061 |
| Married Parents | 68 | 82 | 99 | 132 | 166 | 1698 | 1251 | 101 | 133 | 159 | 210 | 312 | 1704 | 1392 |
| After 9/76 | 63 | 79 | 99 | 143 | 175 | 777 | 489 | 94 | 125 | 149 | 208 | 315 | 795 | 618 |
| 10/74 - 9/76 | 69 | 84 | 101 | 119 | 161 | 477 | 355 | 99 | 132 | 160 | 208 | 302 | 503 | 398 |
| 10/73 - 9/74 | 75 | 88 | 94 | 117 | 164 | 210 | 134 | 113 | 153 | 179 | 218 | 312 | 202 | 154 |
| 10/72 - 9/73 | 78 | 81 | 95 | 121 | 157 | 168 | 134 | 113 | 134 | 174 | 219 | 321 | 147 | 91 |
| Before 10/72 | 63 | 75 | 90 | 114 | 167 | 51 | 31 | 131 | 151 | 180 | 221 | 317 | 36 | 27 |
| Adoptive Parents | 63 | 82 | 96 | 131 | 232 | 41 | 30 | 95 | 120 | 161 | 197 | 314 | 119 | 86 |
| Unwed Parents | 65 | 84 | 103 | 125 | 171 | 309 | 249 | 98 | 128 | 140 | 189 | 278 | 234 | 163 |
| After 9/76 | 58 | 82 | 99 | 124 | 187 | 62 | 47 | 95 | 135 | 140 | 180 | 283 | 54 | 38 |
| 10/74 - 9/76 | 67 | 79 | 100 | 117 | 178 | 68 | 53 | 94 | 116 | 140 | 186 | 281 | 66 | 51 |
| 10/73 - 9/74 | 63 | 83 | 102 | 120 | 149 | 49 | 41 | 97 | 151 | 134 | 178 | 270 | 41 | 20 |
| 10/72 - 9/73 | 70 | 94 | 108 | 128 | 177 | 67 | 49 | 101 | 122 | 149 | 204 | 276 | 45 | 27 |
| Before 10/72 | 68 | 81 | 104 | 133 | 159 | 61 | 45 | 112 | 124 | 139 | 204 | 269 | 27 | 20 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 57 | 67 | 88 | 143 | 225 | 648 | 428 | 78 | 95 | 119 | 180 | 296 | 715 | 503 |
| Married Parents | 59 | 75 | 96 | 143 | 187 | 161 | 95 | 98 | 129 | 140 | 201 | 297 | 218 | 168 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 57 | 72 | 96 | 141 | 213 | 488 | 328 | 91 | 109 | 134 | 204 | 302 | 455 | 363 |
| Married Parents | 60 | 79 | 99 | 141 | 172 | 421 | 274 | 91 | 119 | 149 | 205 | 312 | 534 | 402 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 66 | 85 | 106 | 135 | 203 | 413 | 328 | 98 | 125 | 155 | 204 | 308 | 229 | 177 |
| Married Parents | 70 | 84 | 101 | 125 | 158 | 755 | 556 | 103 | 138 | 165 | 213 | 311 | 778 | 643 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 72 | 86 | 104 | 138 | 200 | 90 | 74 | 104 | 115 | 142 | 194 | 237 | 18 | 16 |
| Married Parents | 78 | 85 | 94 | 126 | 168 | 356 | 303 | 119 | 148 | 188 | 229 | 335 | 169 | 120 |

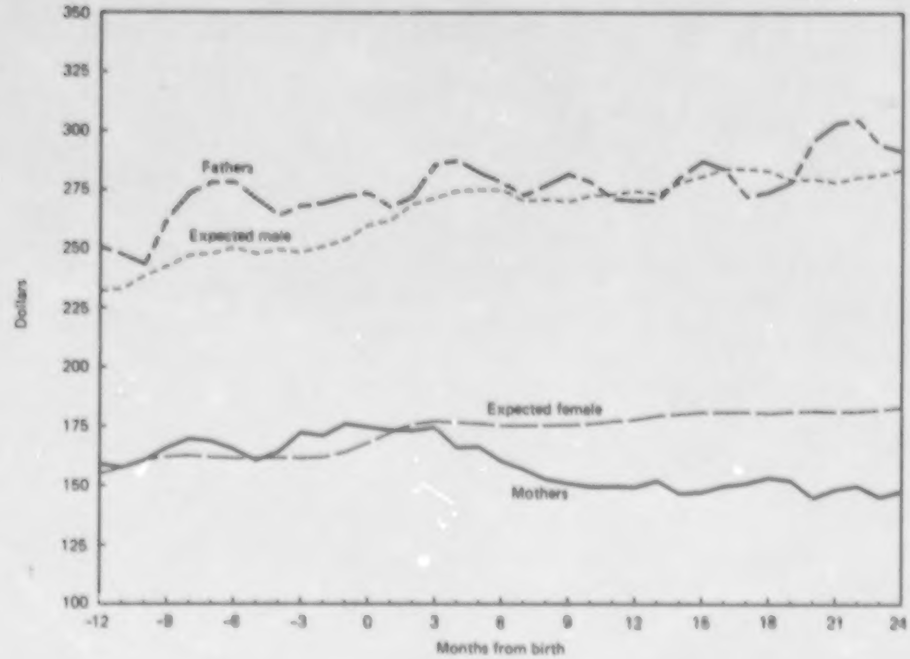

Fig. 6.3—Total earnings per week

miles to work, by timing of marriage and parenthood. As these measures of job characteristics appear at a maximum of two survey dates, we are not able to trace the time path of these variables for the years during which a birth occurred. We can use the values in Table 6.4 to compare job characteristics of women in the years before and the years following a birth, and to compare job characteristics of mothers with those of nonmothers.

These comparisons show trends toward increasing supervisory responsibility (Table 6.4) and independence (Table 6.5) among employed nonmothers between 1976 and 1979 (see the first two rows labeled "Nonparents"). Women who had their first birth during this period did not share in this trend, but show noticeable decreases in both the percentage in supervisory positions and the number of employees supervised (Table 6.4), along with a slight increase in their independence on their job (Table 6.5). In 1979, a smaller percentage of mothers than nonmothers supervised others at work, and mothers supervised a smaller average number of other employees than did nonmothers. These changes could have occurred either because the women with the most supervisory responsibility left the labor force at a higher rate than those with little responsibility, or because some women gave up supervisory positions following the birth, perhaps due to conflicts between work and home responsibilities.

## Table 6.4

### PERCENTAGE IN A SUPERVISORY POSITION, AND NUMBER OF EMPLOYEES SUPERVISED, BY MARITAL AND PARENTHOOD STATUS, ALL NLS RESPONDENTS

| | Females | | | | | | Males | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Supervisory Position | | Number of Employees | | Sample Size | | Supervisory Position | | Number of Employees | | Sample Size | |
| Parenthood Status | 1976 | 1979 | 1976 | 1979 | Mean | Min. | 1976 | 1979 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | |
| Single | 35.9 | 37.0 | 3.1 | 3.6 | 1732 | 1685 | 40.0 | 38.6 | 3.1 | 3.1 | 2165 | 2023 |
| Ever Married | 35.1 | 36.0 | 2.9 | 3.0 | 1876 | 1697 | 43.7 | 45.2 | 3.9 | 4.4 | 1673 | 1493 |
| Married Parents | 32.4 | 25.2 | 2.4 | 1.6 | 1588 | 1296 | 44.2 | 43.4 | 2.9 | 4.3 | 1867 | 1581 |
| After 9/76 | 34.0 | 28.1 | 2.7 | 1.9 | 756 | 508 | 44.1 | 44.3 | 3.1 | 4.6 | 937 | 849 |
| 10/74 - 9/76 | 32.4 | 24.9 | 2.5 | 1.8 | 373 | 370 | 46.3 | 42.9 | 3.0 | 4.1 | 540 | 438 |
| 10/73 - 9/74 | 27.1 | 24.2 | 2.0 | 0.9 | 203 | 186 | 40.5 | 38.1 | 2.9 | 3.5 | 198 | 160 |
| 10/72 - 9/73 | 31.8 | 23.3 | 1.4 | 1.1 | 182 | 163 | 43.8 | 46.5 | 2.0 | 4.3 | 135 | 101 |
| Before 10/72 | 29.0 | 11.3 | [illegible].1 | 1.7 | 62 | 62 | 46.3 | 36.0 | 2.8 | 3.0 | 33 | 25 |
| Adoptive Parents | 34.8 | 30.0 | 2.0 | 0.8 | 38 | 30 | 52.3 | 46.2 | 3.8 | 3.7 | 135 | 117 |
| Unwed Parents | 34.5 | 26.5 | 2.4 | 2.0 | 315 | 253 | 47.9 | 41.7 | 3.1 | 3.9 | 241 | 175 |
| After 9/76 | 37.1 | 28.3 | 2.1 | 1.6 | 61 | 53 | 37.0 | 34.1 | 2.0 | 3.2 | 58 | 44 |
| 10/74 - 9/76 | 24.1 | 28.8 | 1.5 | 1.9 | 69 | 59 | 50.5 | 43.9 | 3.2 | 3.7 | 77 | 57 |
| 10/73 - 9/74 | 40.3 | 20.0 | 3.1 | 1.0 | 51 | 40 | 52.8 | 47.8 | 3.4 | 2.4 | 38 | 23 |
| 10/72 - 9/73 | 32.2 | 21.6 | 2.6 | 2.9 | 70 | 51 | 47.9 | 48.4 | 3.0 | 7.0 | 39 | 31 |
| Before 10/72 | 40.8 | 32.0 | 2.7 | 2.4 | 63 | 50 | 55.6 | 35.0 | 4.3 | 2.8 | 28 | 20 |
| Timing of first marriage: | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | |
| Nonparents | 37.0 | 37.8 | 3.6 | 3.8 | 778 | 724 | 43.7 | 44.1 | 4.0 | 4.0 | 894 | 864 |
| Married Parents | 34.0 | 19.8 | 2.9 | 1.5 | 165 | 96 | 42.4 | 45.7 | 2.5 | 3.9 | 261 | 234 |
| 10/74 - 9/76 | | | | | | | | | | | | |
| Nonparents | 36.1 | 37.5 | 2.6 | 2.7 | 559 | 506 | 43.0 | 46.8 | 3.7 | 4.6 | 510 | 408 |
| Married Parents | 34.5 | 27.4 | 3.0 | 1.7 | 372 | 281 | 45.0 | 42.0 | 3.1 | 4.5 | 612 | 519 |
| 10/72 - 9/74 | | | | | | | | | | | | |
| Nonparents | 33.0 | 31.8 | 2.4 | 2.1 | 445 | 387 | 44.7 | 46.1 | 4.0 | 5.5 | 248 | 204 |
| Married Parents | 32.2 | 27.8 | 2.1 | 1.8 | 667 | 580 | 44.5 | 43.2 | 3.1 | 4.2 | 833 | 702 |
| Before 10/72 | | | | | | | | | | | | |
| Nonparents | 25.5 | 30.4 | 1.2 | 1.5 | 92 | 79 | 45.8 | 50.0 | 3.8 | 5.6 | 20 | 16 |
| Married Parents | 29.5 | 19.9 | 2.1 | 1.3 | 378 | 336 | 42.6 | 46.3 | 2.5 | 5.1 | 155 | 123 |

## Table 6.5

## JOB INDEPENDENCE SCALE AND NUMBER OF MILES TO WORK BY MARITAL AND PARENTHOOD STATUS, ALL NLS RESPONDENTS

| | Females | | | | Males | | | |
|---|---|---|---|---|---|---|---|---|
| | Job Independence Scale | Number of Miles to Work | Sample Size | | Job Independence Scale | Number of Miles to Work | Sample Size | |
| Parenthood Status | | | Mean | Min. | | | Mean | Min. |
| Nonparents | | | | | | | | |
| Single | 296.7 | 9.0 | 1737 | 1704 | 287.7 | 10.2 | 2071 | 1965 |
| Ever Married | 307.0 | 9.3 | 1728 | 1676 | 306.7 | 11.6 | 1527 | 1451 |
| Married Parents | 281.5 | 8.2 | 1310 | 1239 | 298.9 | 11.8 | 1583 | 1485 |
| After 9/76 | 291.2 | 8.4 | 514 | 489 | 306.5 | 11.4 | 844 | 797 |
| 10/74 - 9/76 | 275.0 | 8.5 | 371 | 352 | 294.4 | 11.8 | 436 | 410 |
| 10/73 - 9/74 | 281.1 | 7.2 | 191 | 175 | 287.8 | 12.0 | 162 | 147 |
| 10/72 - 9/73 | 267.9 | 8.2 | 168 | 159 | 281.2 | 12.0 | 102 | 96 |
| Before 10/72 | 279.3 | 6.9 | 59 | 58 | 273.1 | 19.5 | 28 | 26 |
| Adoptive Parents | 286.2 | 11.4 | 31 | 29 | 289.1 | 11.5 | 113 | 110 |
| Unwed Parents | 260.2 | 8.0 | 264 | 251 | 276.7 | 10.4 | 178 | 176 |
| After 9/76 | 275.9 | 8.4 | 57 | 56 | 268.7 | 11.4 | 49 | 48 |
| 10/74 - 9/76 | 250.0 | 7.7 | 60 | 58 | 275.0 | 9.9 | 55 | 55 |
| 10/73 - 9/74 | 243.9 | 8.0 | 43 | 41 | 295.5 | 11.6 | 23 | 22 |
| 10/72 - 9/73 | 253.2 | 7.3 | 52 | 47 | 266.7 | 8.3 | 31 | 30 |
| Before 10/72 | 274.5 | 8.6 | 51 | 47 | 295.0 | 11.0 | 20 | 20 |
| Timing of First marriage: | | | | | | | | |
| After 9/76 | | | | | | | | |
| Nonparents | 300.4 | 9.5 | 741 | 725 | 307.3 | 11.5 | 893 | 854 |
| Married Parents | 278.7 | 7.8 | 93 | 89 | 304.9 | 10.0 | 237 | 225 |
| 10/74 - 9/76 | | | | | | | | |
| Nonparents | 315.5 | 9.3 | 518 | 502 | 305.1 | 12.3 | 415 | 395 |
| Married Parents | 294.1 | 8.1 | 285 | 273 | 302.1 | 12.5 | 512 | 483 |
| 10/72 - 9/74 | | | | | | | | |
| Nonparents | 308.0 | 9.3 | 391 | 376 | 310.2 | 10.6 | 202 | 187 |
| Married Parents | 279.5 | 8.6 | 593 | 562 | 296.4 | 11.7 | 705 | 659 |
| Before 10/72 | | | | | | | | |
| Nonparents | 306.9 | 7.4 | 77 | 72 | 264.3 | 10.3 | 15 | 14 |
| Married Parents | 274.7 | 7.6 | 335 | 312 | 290.4 | 12.4 | 125 | 115 |

We also note that within all marriage cohorts, nonmothers have more supervisory responsibility, on average, than mothers do. Table 6.5 also shows travel to work, in miles, for the 1979 job only. This cross-sectional comparison indicates that nonparents travel farther than parents, both within marriage cohorts and when one compares married and single nonparents with married and unwed mothers. The shorter travel distances for mothers fit with the argument that women may trade job convenience—in this case nearness to home—for wages, job advancement, or occupational status. But we cannot rule out the explanation that differences in other characteristics between parents and nonparents would explain the divergence we observe in various aspects of their jobs.

*Job Expectations.* We next ask whether these changes in labor market rewards following the first birth coincide with changes in the expectations of these mothers. Do women, on average, change what they *expect* to do in the long run as well as their behavior in the short run? To answer this question, we draw on responses to a key question asked on each follow-up survey: "What kind of work will you be doing when you are 30 years old?"[2] Possible responses consisted of a set of 16 occupational categories, each accompanied by a short list of specific occupations contained in the category. Three indicators of expectations are: an index of the career (occupational category) in which women expect to work; the percentage of women expecting to enter a professional occupation; and the percentage expecting to be full-time homemakers. The career expectations index was derived using canonical correlation between the (indicator variables for) 1973 occupational expectations and a set of background factors (ability, student performance, and socioeconomic measures) that are known to be related to career choices. This index includes a score for "homemaker" and thus includes all respondents who plan to work and name an occupation or who plan to work full time in the home. Note from Table 6.6 and Fig. 6.4 that women have higher average scores on this index than do men. This difference appears for the married and single, for parents and the childless, and so does not result from differential selectivity into parenthood for men and women. It may arise from the relatively high score assigned to clerical occupations, which women are more likely to enter than are men, relative to the crafts, operative, and service occupations, more often held by males.[3]

Tables 6.6, 6.7, and 6.8 present results for these measures of expectations by timing of marriage and parenthood. Table 6.6 shows that the average career-index score for women's expected occupation undergoes a slight decline follow-

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[2] In the Base Year Questionnaire, respondents were asked to select the occupational category "that goes with the best description of the kind of work you would like to do." Unlike the follow-up questions, which asked the respondent to report what he or she expected to be doing at a particular age, the base year question is indefinite. Also, the base year question presented somewhat fewer occupational categories. In view of these differences between base year and follow-up surveys, caution is warranted in interpreting changes between 1972 and subsequent years.

[3] The scores assigned to the occupational categories are as follows: Professional I (e.g., clergyman, dentist, lawyer, physician, scientist, college teacher), 80; Professional II, 64; School Teacher, 63; Manager, 49; Military, 48; Proprietor, 42; Technical, 40; Sales, 38; Homemaker, 36; Clerical, 35; Farmer, 33; Protective, 31; Service, 25; Craftsman, 24; Operative, 15; Laborer, 10. Details of the derviation may be found in Haggstrom et al. (1981).

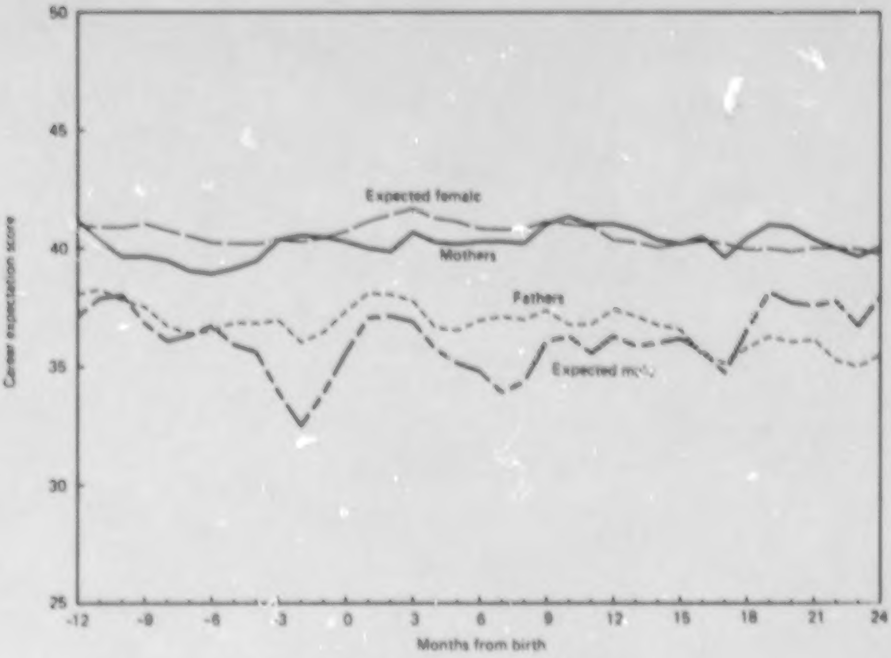

Fig. 6.4—Career expectation scores

ing childbirth, with somewhat larger declines for unmarried than for married parents. In all years and for all marriage cohorts, mothers expect to work in occupations that are lower on the index than do nonmothers. Part of this difference results from the proportions of the two groups expecting to be full-time homemakers, since this "occupation" has a score on the index approximately equivalent to clerical worker. Part of it results from different characteristics of mothers and nonmothers.

Figure 6.4 presents the time series of actual and expected means in the absence of parenthood for the index of career expectations. This figure shows no trends in either series during the three years surrounding the first birth.

Table 6.7 shows a relationship between parenthood and women's expectations for a professional occupation. The percentages of women expecting a professional job tend to fall from the year preceding to the year following the first birth, with larger declines for unmarried than for married women. We speculate that single mothers experience more constraints on their training and job advancement following parenthood than do married mothers, because single mothers are more likely to be solely responsible for their own and their child's financial support. In addition, unwed mothers may be less realistic initially about their prospects than married mothers, given that a substantially higher percentage expect professional jobs despite their having lower average ability

## Table 6.6

## INDEX OF CAREER EXPECTATIONS BY MARITAL AND PARENTHOOD STAT

|  | Females |  |  |  |  |  |  | Males |  |  |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  |  |  | Sample Size |  |  |  |  |  |  | Sample Size |  |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Single | 56.8 | 54.5 | 54.1 | 53.9 | 51.8 | 2227 | 1606 | 51.6 | 51.6 | 51.3 | 49.8 | 47.1 | 3020 | 2059 |
| Ever Married | 53.5 | 49.7 | 49.1 | 48.5 | 47.1 | 2386 | 1760 | 48.9 | 48.7 | 48.0 | 46.0 | 44.7 | 2079 | 1466 |
| Married Parents | 46.4 | 42.4 | 41.6 | 41.1 | 40.9 | 3112 | 2135 | 40.5 | 38.9 | 38.1 | 36.9 | 35.8 | 2192 | 1382 |
| After 9/76 | 49.6 | 45.3 | 44.6 | 43.1 | 42.8 | 1223 | 883 | 43.8 | 42.3 | 41.5 | 39.5 | 38.1 | 1077 | 709 |
| 10/74 - 9/76 | 46.1 | 41.8 | 40.1 | 39.5 | 40.0 | 888 | 601 | 37.5 | 37.0 | 36.0 | 35.3 | 33.8 | 630 | 386 |
| 10/73 - 9/74 | 42.4 | 39.4 | 39.2 | 40.0 | 39.5 | 475 | 314 | 37.7 | 33.9 | 32.3 | 33.1 | 31.9 | 241 | 146 |
| 10/72 - 9/73 | 42.2 | 39.2 | 39.7 | 39.8 | 39.2 | 391 | 261 | 35.0 | 35.1 | 35.1 | 33.2 | 34.4 | 173 | 103 |
| Before 10/72 | 39.1 | 40.8 | 41.1 | 40.5 | 39.6 | 105 | 60 | 29.1 | 32.7 | 31.9 | 34.0 | 31.7 | 40 | 18 |
| Adoptive Parents | 42.6 | 45.4 | 42.9 | 43.4 | 41.7 | 68 | 48 | 38.9 | 38.0 | 37.5 | 35.3 | 33.2 | 152 | 89 |
| Unwed Parents | 46.7 | 44.6 | 44.1 | 43.2 | 41.4 | 611 | 314 | 44.2 | 40.8 | 40.7 | 38.7 | 36.4 | 337 | 169 |
| After 9/76 | 49.2 | 50.6 | 51.2 | 48.5 | 45.7 | 101 | 62 | 46.4 | 37.5 | 41.0 | 36.6 | 36.6 | 82 | 44 |
| 10/74 - 9/76 | 48.7 | 43.6 | 44.0 | 41.1 | 41.6 | 133 | 63 | 46.9 | 42.5 | 42.2 | 39.2 | 37.6 | 102 | 58 |
| 10/73 - 9/74 | 48.9 | 44.5 | 42.2 | 42.7 | 43.5 | 106 | 46 | 45.7 | 42.1 | 40.3 | 39.2 | 36.4 | 54 | 24 |
| 10/72 - 9/73 | 43.0 | 43.8 | 42.3 | 42.3 | 38.2 | 155 | 96 | 42.5 | 42.1 | 41.2 | 41.7 | 35.5 | 62 | 30 |
| Before 10/72 | 46.1 | 42.0 | 43.5 | 42.8 | 39.2 | 115 | 47 | 26.1 | 38.9 | 36.0 | 35.8 | 34.8 | 35 | 13 |
| Timing of first marriage: |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| After 9/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 56.8 | 53.3 | 53.0 | 51.4 | 48.3 | 975 | 720 | 52.0 | 51.7 | 51.3 | 49.1 | 47.1 | 1127 | 784 |
| Married Parents | 51.4 | 49.0 | 47.0 | 45.6 | 44.6 | 266 | 190 | 44.0 | 43.4 | 43.2 | 41.2 | 39.2 | 319 | 206 |
| 10/74 - 9/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 54.1 | 50.3 | 49.1 | 48.3 | 47.7 | 725 | 548 | 46.1 | 47.2 | 46.4 | 43.4 | 43.0 | 635 | 460 |
| Married Parents | 51.5 | 46.9 | 45.2 | 43.6 | 42.7 | 688 | 489 | 42.2 | 41.7 | 40.3 | 38.3 | 36.4 | 718 | 472 |
| 10/72 - 9/74 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 49.2 | 44.5 | 43.8 | 45.0 | 44.6 | 560 | 406 | 44.5 | 41.6 | 40.2 | 40.9 | 39.6 | 294 | 207 |
| Married Parents | 45.8 | 40.7 | 40.2 | 39.9 | 40.2 | 1391 | 958 | 38.2 | 36.5 | 35.7 | 35.3 | 34.7 | 955 | 593 |
| Before 10/72 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 43.0 | 41.2 | 42.4 | 44.4 | 43.9 | 122 | 83 | 27.9 | 39.3 | 34.3 | 37.0 | 29.7 | 21 | 14 |
| Married Parents | 40.6 | 39.0 | 39.3 | 39.3 | 39.2 | 758 | 492 | 34.8 | 33.9 | 34.5 | 33.1 | 33.4 | 193 | 108 |

## Table 6.7

### PERCENTAGE OF RESPONDENTS WHO EXPECT TO ENTER A PROFESSIONAL OCCUPATION, BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 62.2 | 58.9 | 57.5 | 55.6 | 47.6 | 2227 | 1606 | 51.7 | 48.9 | 48.5 | 43.2 | 36.5 | 3020 | 2059 |
| Ever Married | 53.5 | 45.5 | 43.6 | 40.2 | 34.8 | 2386 | 1760 | 43.7 | 42.1 | 39.8 | 33.7 | 28.9 | 2079 | 1466 |
| Married Parents | 33.8 | 23.8 | 21.6 | 19.9 | 19.6 | 3112 | 2135 | 26.1 | 23.3 | 20.9 | 16.9 | 13.9 | 2192 | 1382 |
| After 9/76 | 43.0 | 32.8 | 30.0 | 25.6 | 24.1 | 1223 | 883 | 33.7 | 30.2 | 26.9 | 21.8 | 17.1 | 1077 | 709 |
| 10/74 - 9/76 | 32.9 | 21.6 | 16.5 | 15.6 | 17.2 | 888 | 601 | 18.9 | 18.9 | 15.3 | 13.6 | 10.8 | 630 | 386 |
| 10/73 - 9/74 | 22.9 | 15.0 | 15.4 | 16.7 | 15.7 | 475 | 314 | 19.2 | 15.8 | 13.2 | 9.8 | 8.8 | 241 | 146 |
| 10/72 - 9/73 | 22.6 | 14.4 | 17.0 | 16.3 | 15.6 | 391 | 261 | 15.5 | 15.0 | 18.2 | 11.7 | 13.5 | 173 | 103 |
| Before 10/72 | 11.7 | 18.0 | 19.3 | 19.2 | 19.8 | 105 | 60 | 11.1 | 7.1 | 7.5 | 12.0 | 3.8 | 40 | 18 |
| Adoptive Parents | 29.2 | 34.2 | 25.4 | 26.7 | 23.0 | 68 | 48 | 20.2 | 22.2 | 19.9 | 14.5 | 8.0 | 152 | 89 |
| Unwed Parents | 34.7 | 31.0 | 31.9 | 28.3 | 23.0 | 611 | 314 | 32.5 | 25.7 | 27.5 | 21.1 | 15.4 | 337 | 169 |
| After 9/76 | 40.3 | 48.1 | 51.5 | 43.4 | 30.6 | 101 | 62 | 38.6 | 20.2 | 29.7 | 16.7 | 18.8 | 82 | 44 |
| 10/74 - 9/76 | 41.3 | 28.5 | 32.9 | 23.2 | 23.6 | 133 | 63 | 41.4 | 27.7 | 29.4 | 22.1 | 18.0 | 102 | 58 |
| 10/73 - 9/74 | 41.3 | 31.0 | 26.3 | 26.8 | 30.3 | 106 | 46 | 33.3 | 25.9 | 28.4 | 21.3 | 18.3 | 54 | 24 |
| 10/72 - 9/73 | 25.0 | 28.1 | 25.8 | 25.5 | 16.2 | 155 | 96 | 20.0 | 31.2 | 27.3 | 26.2 | 9.5 | 62 | 30 |
| Before 10/72 | 31.9 | 23.6 | 30.0 | 26.5 | 17.0 | 115 | 47 | 0.0 | 20.5 | 15.8 | 19.5 | 6.4 | 35 | 13 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 62.6 | 57.1 | 55.5 | 49.3 | 38.8 | 975 | 720 | 50.6 | 48.0 | 46.6 | 40.3 | 32.9 | 1127 | 784 |
| Married Parents | 47.4 | 44.3 | 36.7 | 33.9 | 31.3 | 266 | 190 | 34.0 | 35.8 | 32.4 | 28.5 | 21.8 | 319 | 206 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 54.7 | 47.3 | 43.4 | 39.3 | 37.2 | 725 | 548 | 38.3 | 38.7 | 36.8 | 28.2 | 26.7 | 635 | 460 |
| Married Parents | 48.1 | 38.0 | 32.5 | 27.4 | 24.1 | 688 | 489 | 32.2 | 28.7 | 24.3 | 18.1 | 13.9 | 718 | 472 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 41.4 | 29.2 | 27.5 | 28.7 | 26.5 | 560 | 406 | 31.9 | 29.1 | 22.5 | 22.4 | 18.3 | 294 | 207 |
| Married Parents | 32.5 | 18.4 | 17.1 | 16.3 | 17.0 | 1391 | 958 | 21.1 | 18.0 | 15.8 | 13.7 | 11.7 | 955 | 593 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 24.1 | 19.5 | 23.8 | 28.0 | 25.6 | 122 | 83 | 7.1 | 17.4 | 17.4 | 17.4 | 8.7 | 21 | 14 |
| Married Parents | 17.1 | 13.7 | 15.1 | 14.9 | 16.0 | 758 | 492 | 13.0 | 11.6 | 14.5 | 10.6 | 10.9 | 193 | 108 |

## Table 6.8

## PERCENTAGE OF FEMALES WHO EXPECT TO BE A HOMEMAKER BY MARITAL AND PARENTHOOD STATUS

| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Sample Size Mean | Sample Size Min. |
|---|---|---|---|---|---|---|---|
| Nonparents | | | | | | | |
| Single | 2.3 | 12.5 | 11.1 | 8.3 | 5.9 | 2227 | 1606 |
| Ever Married | 3.6 | 21.2 | 22.2 | 21.7 | 19.8 | 2386 | 1760 |
| Married Parents | 10.4 | 38.1 | 41.2 | 38.9 | 30.9 | 3112 | 2135 |
| After 9/76 | 6.5 | 30.3 | 35.3 | 38.0 | 33.0 | 1223 | 883 |
| 10/74 - 9/76 | 7.8 | 43.2 | 47.8 | 42.4 | 29.2 | 888 | 601 |
| 10/73 - 9/74 | 11.5 | 47.3 | 43.0 | 38.5 | 33.5 | 475 | 314 |
| 10/72 - 9/73 | 22.2 | 39.0 | 42.5 | 37.2 | 28.6 | 391 | 261 |
| Before 10/72 | 33.3 | 31.5 | 36.8 | 29.2 | 18.2 | 105 | 60 |
| Adoptive Parents | 2.1 | 31.6 | 36.6 | 34.7 | 24.3 | 68 | 48 |
| Unwed Parents | 6.7 | 21.7 | 21.1 | 19.8 | 14.0 | 611 | 314 |
| After 9/76 | 8.1 | 9.3 | 13.6 | 10.6 | 11.6 | 101 | 62 |
| 10/74 - 9/76 | 1.6 | 20.5 | 18.2 | 24.4 | 15.3 | 133 | 63 |
| 10/73 - 9/74 | 0.0 | 25.0 | 24.8 | 22.8 | 13.8 | 106 | 46 |
| 10/72 - 9/73 | 8.3 | 23.8 | 22.6 | 23.0 | 16.2 | 155 | 96 |
| Before 10/72 | 14.9 | 27.6 | 23.8 | 15.2 | 12.8 | 115 | 47 |
| Timing of first marriage: | | | | | | | |
| After 9/76 | | | | | | | |
| Nonparents | 1.9 | 14.4 | 13.8 | 13.8 | 19.8 | 975 | 720 |
| Married Parents | 3.7 | 21.2 | 27.8 | 26.4 | 31.3 | 266 | 190 |
| 10/74 - 9/76 | | | | | | | |
| Nonparents | 3.3 | 19.3 | 22.3 | 27.8 | 22.5 | 725 | 548 |
| Married Parents | 4.3 | 27.7 | 32.7 | 39.9 | 30.8 | 688 | 489 |
| 10/72 - 9/74 | | | | | | | |
| Nonparents | 4.9 | 32.3 | 34.5 | 26.5 | 17.9 | 560 | 406 |
| Married Parents | 7.4 | 43.9 | 47.1 | 40.3 | 31.9 | 1391 | 958 |
| Before 10/72 | | | | | | | |
| Nonparents | 13.3 | 34.4 | 33.1 | 23.8 | 14.0 | 122 | 83 |
| Married Parents | 24.6 | 42.3 | 42.4 | 39.9 | 28.9 | 758 | 492 |

and school performance and the fact that they come from families with lower socioeconomic status. The pattern of professional expectations follows the other job characteristics that we have examined in that all marriage cohorts show lower expectations for mothers than for nonmothers who married during the same period. We see relatively little evidence of parenthood effects in Fig. 6.5, which plots actual professional expectations and our estimates of what they would be for these women in the absence of parenthood.

The results of our logistic regression analysis for ever-married nonparents suggest that marriage may lead some women to give up their professional career goals (see App. B, Table B.10). The sizeable negative coefficient for

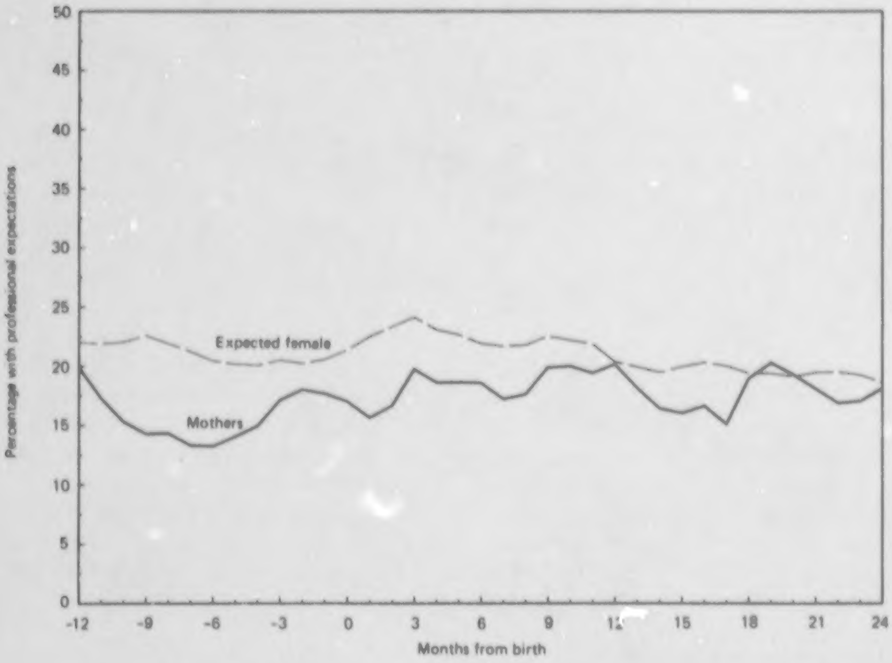

Fig. 6.5—Proportion expecting to enter a professional occupation

marriage in our regression equation contrasts with the positive coefficient associated with marriage in our equation for the status of women's actual occupation, as well as with the positive effects of marriage estimated for women's earnings. One explanation for these contrasting findings is that marriage tends to increase women's short-term ambitions for a remunerative job that will help a young couple get off on a sound financial footing, while at the same time it tends to decrease their long-term career ambitions.

Many women, of course, expect to work mainly or exclusively in the home. Presumably, women who marry and/or begin their families relatively early possess a greater preference for traditional roles than do those who delay their entry into family formation. If initial preferences influence both expectations for and actual timing of marriage and childbearing, then we will observe a higher percentage of mothers than nonmothers expecting to be housewives *before* their first birth. But if preferences change in response to the birth, we will observe increases in the percentages expecting a career as homemakers in the year or two after the first child is born. Table 6.8 presents the percentages of women whose response to the question, "What kind of work will you be doing when you are 30 years old?," is that they will be homemakers. It shows predominantly the first pattern; expectations for homemaking do not increase, in general, in the year following the first birth, but do increase during the years preceding the birth for those who go on to become mothers. In 1979, a small minority of nonmothers—both married and single—expected careers as homemakers, compared with a third of married mothers and 14 percent of unmarried mothers. Although these patterns suggest anticipatory effects of parenthood, Fig. 6.6 shows that actual means on the homemaking expectations measure substantially exceed our estimates of homemaking expectations in the absence of parenthood. These plots indicate that homemaker expectations rise dramatically at the onset of pregnancy and then fall as the pregnancy progresses and after the child is born. These results indicate strong parenthood effects.

Not surprisingly, homemaking expectations also appear to be strongly affected by marriage, judging from the sizeable coefficient for marriage in our regression model for nonparents (App. B, Table B.11).

Both marriage and parenthood may alter a woman's tastes away from employment and toward the family. Spitze and Waite (1981) find evidence that marriage alters women's tastes, but no evidence that the first birth does. As a measure of the importance of work and the rewards from work in the lives of the individuals, we examine a scale of orientation to work that combines the importance ratings the respondent assigns to being successful in her chosen line of work, having lots of money, and being able to find steady work. As responses on this scale show no trend over time, no change with parenthood, and no difference between parents and nonparents, we do not include a table of

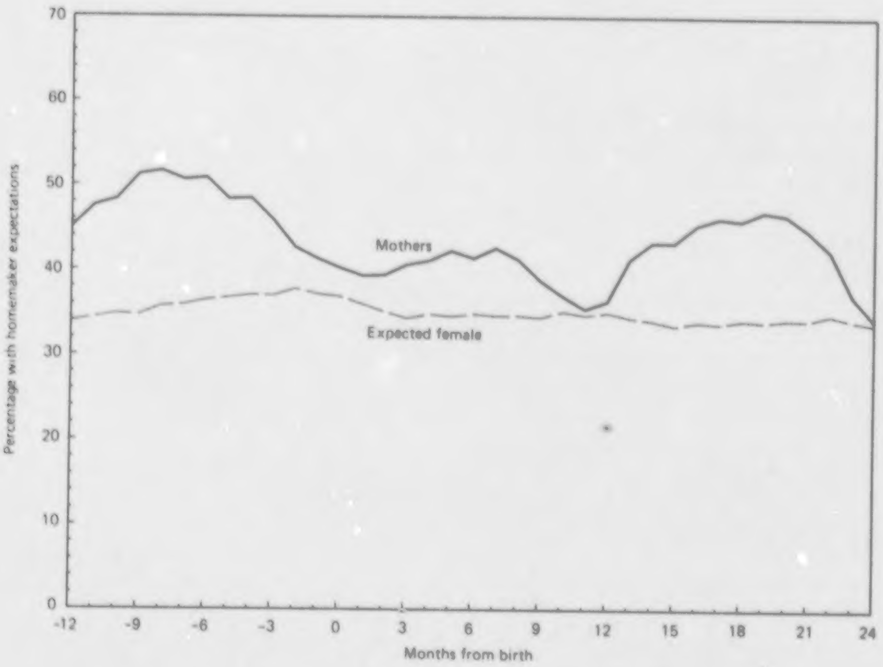

Fig. 6.6—Proportion of females who expect to be a homemaker

these results. However, comparison of mothers' actual work orientation with our estimates of their orientation in the absence of parenthood reveals noticeable effects (Fig. 6.7). First, mothers show lower than expected values on this scale even prior to the pregnancy, suggesting that initial work orientations influence the likelihood of a first birth. Second, work orientation falls for mothers beginning at the onset of pregnancy, and remains well below expectations for the next two years. This pattern suggests a decline in the importance of work as a result of parenthood.

Finally, we examine how parenthood affects women's reports of their *current* homemaking activity (in contrast with the expectations examined above). Table 6.9 presents results on two measures. The first is the percentage of women who report that they are homemakers, perhaps in addition to holding a job or looking for one, or being a student. The second gives the percentages of women whose main activity was homemaking.[4] As one would expect, the percentage of women who report homemaking as one of their activities is con-

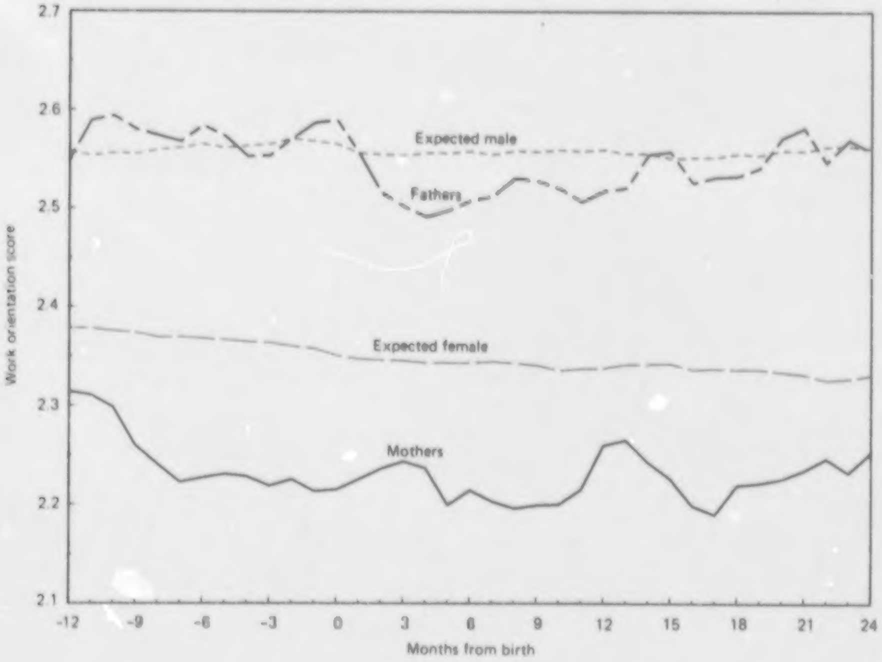

Fig. 6.7—Work orientation scores

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[4] Women were classified as being primarily homemakers at a given time if they (1) identified themselves as homemakers and (2) reported that they were not full-time students, full-time workers, or in the military at that time. For details, see coding specifications for the homemakers track in Kanouse et al. (1980).

siderably higher than the percentage for whom homemaking is the primary activity. Identification of oneself as a homemaker (left panel of Table 6.9) depends on both marriage and parenthood, with marriage coinciding with a large jump in this identification, and a much higher percentage of mothers than nonmothers claiming this role. The importance of marriage is best documented in our regression results for married nonparents (App. B), which indicate a huge marriage effect even after background factors have been controlled. The parenthood effect is discernible in Table 6.9, which shows that half of the married nonmothers say that they are homemakers compared with more than 80 percent of the married mothers and half of the unmarried mothers. Figure 6.8 shows large initial differences between mothers' actual and expected homemaker identification, which widen over time, peak about three months after the first birth, and remain fairly high thereafter. The widening gap between actual and estimated expected outcomes suggests that there are parenthood effects over and above the strong effects of marriage documented in the regression analysis.

Homemaking as the primary activity, on the other hand, depends mostly on parenthood, rising sharply in the year following the first birth for both married and unwed mothers. Up to three-quarters of married mothers are primarily

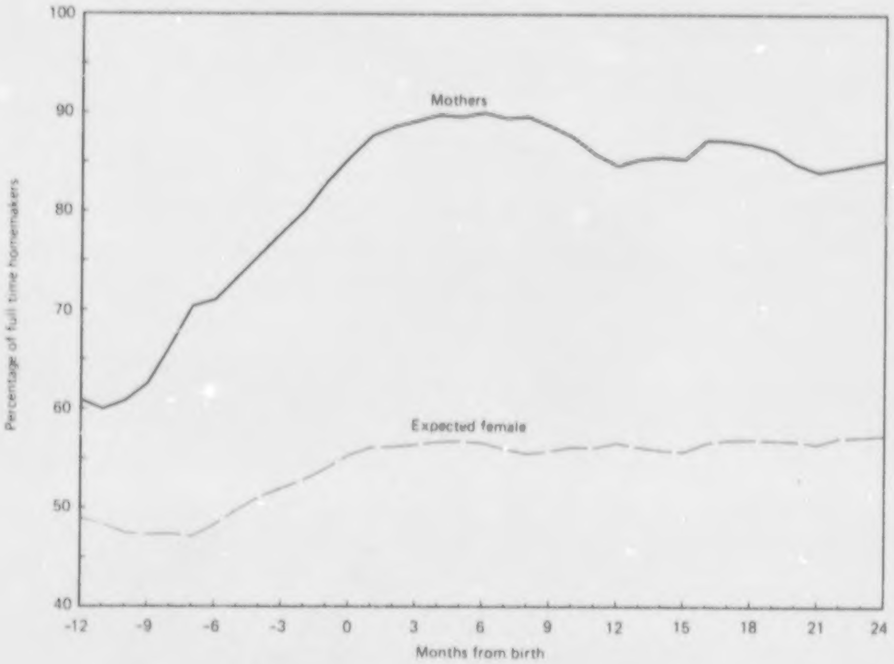

Fig. 6.8—Proportion of females who are homemakers

## Table 6.9

## PERCENTAGE OF FEMALES WHO ARE HOMEMAKERS AND PERCENTAGE WHOSE MAIN ACTIVITY IS HOMEMAKING BY MARITAL AND PARENTHOOD STATUS

| | Percentage Who Are Homemakers | | | | | | | Homemaking Main Activity | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 1.9 | 1.5 | 2.1 | 3.0 | 4.5 | 1866 | 999 | 0.5 | 0.4 | 0.8 | 1.1 | 1.3 | 2269 | 2008 |
| Ever Married | 5.4 | 12.0 | 21.3 | 38.3 | 52.2 | 1938 | 843 | 1.6 | 3.2 | 7.8 | 11.5 | 13.9 | 2532 | 2118 |
| Married Parents | 30.3 | 55.8 | 56.0 | 74.0 | 82.2 | 2592 | 1278 | 11.5 | 19.3 | 36.0 | 47.2 | 57.3 | 3432 | 2915 |
| After 9/76 | 7.7 | 19.2 | 28.5 | 58.5 | 83.5 | 982 | 365 | 2.2 | 4.6 | 10.2 | 22.3 | 60.6 | 1318 | 1183 |
| 10/74 - 9/76 | 19.3 | 45.1 | 60.3 | 87.3 | 83.9 | 711 | 266 | 6.5 | 11.0 | 34.7 | 68.6 | 58.0 | 982 | 843 |
| 10/73 - 9/74 | 38.5 | 73.7 | 86.6 | 79.7 | 77.6 | 410 | 213 | 13.8 | 35.1 | 75.1 | 60.3 | 54.7 | 533 | 433 |
| 10/72 - 9/73 | 67.7 | 88.7 | 84.1 | 82.1 | 80.7 | 364 | 269 | 37.6 | 54.1 | 62.2 | 56.6 | 49.8 | 439 | 333 |
| Before 10/72 | 83.1 | 83.6 | 80.5 | 77.0 | 75.5 | 97 | 61 | 45.3 | 41.5 | 54.0 | 48.8 | 50.0 | 118 | 104 |
| Adoptive Parents | 21.4 | 42.1 | 28.4 | 58.0 | 81.1 | 56 | 19 | 6.7 | 9.3 | 23.9 | 28.7 | 55.4 | 76 | 74 |
| Unwed Parents | 15.9 | 31.2 | 31.4 | 41.8 | 50.5 | 531 | 324 | 7.6 | 12.9 | 24.5 | 26.3 | 29.4 | 663 | 469 |
| After 9/76 | 4.2 | 14.0 | 5.0 | 13.4 | 34.8 | 84 | 43 | 1.0 | 2.8 | 3.6 | 7.8 | 21.7 | 105 | 92 |
| 10/74 - 9/76 | 4.2 | 13.2 | 12.6 | 41.7 | 56.4 | 114 | 53 | 2.0 | 2.7 | 10.7 | 27.2 | 36.3 | 147 | 102 |
| 10/73 - 9/74 | 18.8 | 24.2 | 41.8 | 48.5 | 50.0 | 97 | 64 | 8.3 | 13.2 | 35.0 | 30.5 | 26.2 | 119 | 84 |
| 10/72 - 9/73 | 19.2 | 43.3 | 43.3 | 50.8 | 57.3 | 136 | 96 | 11.3 | 23.1 | 34.3 | 36.2 | 36.4 | 167 | 99 |
| Before 10/72 | 29.2 | 46.6 | 50.4 | 48.2 | 53.3 | 98 | 58 | 14.2 | 18.3 | 33.3 | 24.1 | 25.0 | 123 | 92 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 2.3 | 2.3 | 2.3 | 4.4 | 48.7 | 804 | 388 | 0.4 | 0.5 | 1.0 | 1.3 | 11.6 | 1010 | 897 |
| Married Parents | 2.3 | 2.3 | 3.6 | 8.2 | 79.3 | 213 | 88 | 0.4 | 0.7 | 1.7 | 3.7 | 58.9 | 276 | 236 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 1.3 | 2.2 | [illegible] | 60.7 | 52.6 | 597 | 275 | 0.1 | 0.8 | 0.9 | 16.9 | 16.0 | 769 | 630 |
| Married Parents | 1.0 | 4.6 | 4.9 | 77.0 | 83.3 | 548 | 196 | 0.1 | 1.1 | 2.4 | 38.9 | 60.2 | 741 | 654 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 4.5 | 38.6 | 68.0 | 60.4 | 57.2 | 437 | 145 | 1.1 | 7.3 | 23.8 | 18.5 | 14.5 | 614 | 484 |
| Married Parents | 9.3 | 60.7 | 77.4 | 81.7 | 83.5 | 1141 | 536 | 2.6 | 19.9 | 46.9 | 55.2 | 58.0 | 1546 | 1312 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 68.5 | 88.2 | 54.9 | 60.7 | 55.3 | 95 | 34 | 21.5 | 18.7 | 22.4 | 20.3 | 17.9 | 133 | 106 |
| Married Parents | 80.0 | 83.6 | 80.0 | 79.6 | 79.7 | 683 | 433 | 40.3 | 39.2 | 56.8 | 54.5 | 52.8 | 857 | 706 |

homemakers in the year after their first child is born, with the percentages declining in subsequent years. This same pattern appears in Fig. 6.9, which shows a steep rise in full-time homemaking beginning at the onset of pregnancy, peaking at about the time of the birth, declining in the next three to six months, and remaining fairly constant thereafter. Our estimates of the proportion of married mothers who would have reported homemaking as their main activity if they had not become parents fall well below actual levels, and never exceed 30 percent. Consistent with this, the regression analysis for our measure of homemaking as a main activity indicates average marriage effects that are substantially less sizeable than those observed for our other homemaking identification measure (though they are still highly significant; see App. B, Table B.13).

### Men's Job Characteristics and Expectations

Most theories of attainment in the job market predict positive effects of parenthood on men's success, either because of the reactions of employers, reactions of the men themselves, or because of characteristics of those who become fathers. We argued that in certain circumstances, the financial pres-

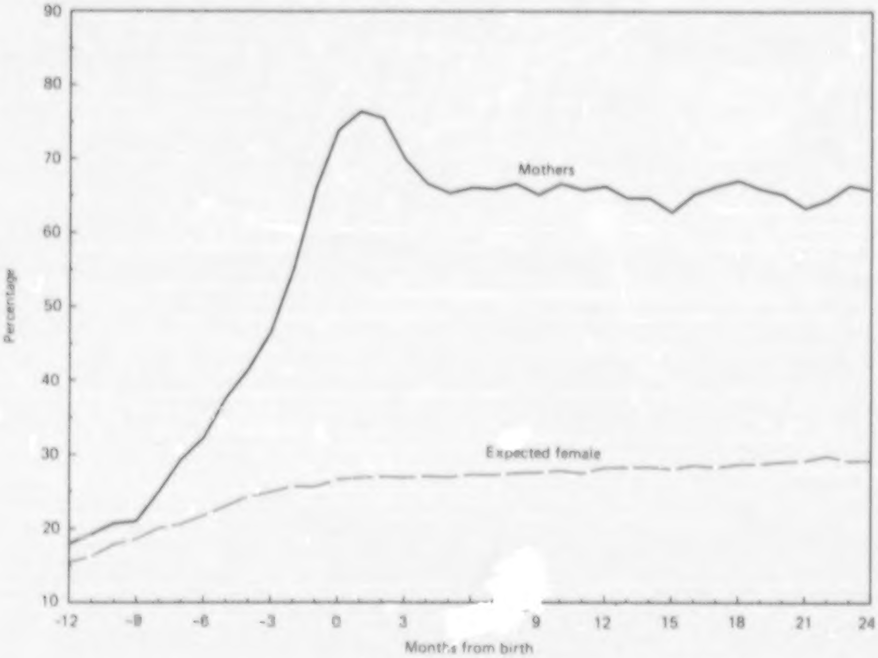

Fig. 6.9—Proportion of females whose main activity is homemaking

sures of a new dependent might render these effects nonexistent or even negative. For example, some new fathers might trade short-run for long-run wage payoffs, or pecuniary benefits for nonpecuniary ones such as status. The rightmost panel of Table 6.1 gives average Duncan SEI scores for males by timing of marriage and parenthood. We observe steady increases in average occupational status for all marriage and parenthood categories from 1972 to 1979; fathers increase the status of their jobs from the year before to the year after their first child is born. Married fathers show larger increases, in general, than unmarried fathers, but nonparents show larger increases than parents, so that by 1979 childless men have occupations that average 8 to 12 points higher in status than those of fathers. This same pattern exists within marriage cohorts—those men who married at about the same time—such that men who delay marriage work in occupations with higher status, but fathers work in lower-status occupations than childless men who married at about the same time.

Figure 6.1 shows smoothed time series of actual and predicted means for our measures of occupational status. It indicates that fathers' lower occupational status results almost entirely from their characteristics and not from parenthood. Expected occupational status follows actual status quite closely for the entire three-year period, both before and after the birth, although actual status dips noticeably below expected status at about 3 months before and 6 to 12 months after the birth.

Although we observe little effect of fatherhood on occupational status, Tables 6.2 and 6.3 give some evidence that parenthood may influence hourly and weekly earnings in the direction predicted by most theories of wage attainment. Despite the fact that both married and unmarried fathers have occupations that are somewhat lower in status than those of married or single childless men, fathers earn higher hourly wage rates—but only if they are married ($7.00 for married fathers versus $6.80 for unmarried and $6.10 for single childless men in 1979). The same pattern appears for total weekly earnings. Men who father children out of wedlock probably have lower human capital, on average, and as a group they undoubtedly bear less financial responsibility for their offspring than married fathers do. But the average hourly wage rates of unwed fathers still exceed those of single childless men ($6.30 versus $6.10), as do total weekly earnings ($279 versus $264). These results suggest that fathers, especially married fathers, respond to the increased financial demands of a new baby by seeking to increase their hourly and weekly earnings. Also supporting this argument are the higher average wage rates and earnings for fathers than for childless men within each marriage cohort except the most recent, shown in the lower panels of Tables 6.2 and 6.3. The fathers' wage advantage is especially striking for those men who married prior to October 1972.

Figures 6.2 and 6.3 indicate that improvements in men's hourly wage rates and weekly earnings due to fatherhood do not occur consistently, but appear primarily during pregnancy. This pattern makes sense if one remembers that fatherhood makes potential demands on the man's time and energy *after* the child is born, perhaps reducing his willingness to maximize earnings in the face of other disadvantages of the job. But during pregnancy, couples may try to increase earnings in anticipation of the later drain on their resources. Figure 6.3 shows smoothed time series of actual and predicted means for total weekly earnings, which show the same pattern as hourly earnings. Fathers' total weekly pay, which tends to be higher than expected during the year before and soon after the birth, tends to fall by six to nine months after the birth to about the level expected in the absence of parenthood. This same pattern appears for hourly rates of pay, shown in Fig. 6.2. As we saw in Chap. 5, fathers spend more hours at work than we would expect in the absence of parenthood, at least during the year prior to the birth; this gap tends to disappear following the birth. Evidently, fathers show a labor market advantage in several of our indicators; these precede but do not follow parenthood. This pattern may indicate a negative effect of parenthood on men's wages and earnings in the two years following the first birth, which follows both from lowered hours at work and from lowered hourly wages relative to those that we would expect in the absence of parenthood, as shown in Figs. 5.3 and 6.2.

The results of our regression analyses of these outcomes for ever-married nonparents (App. B, Tables B.7 and B.8) indicate strong, positive marriage effects on hourly wage rates for males. We also find evidence of strong marriage effects for both sexes on total hours worked per week and—as a result of the combined effects of hourly rates and hours worked—on total earnings per week. The existence of substantial marriage effects for these variables underscores the importance of attempting (as we do) to disentangle the effects of parenthood from those of marriage. Most previous studies have failed to do this, and as a result have probably overestimated the magnitude of parenthood effects.

The other job characteristics we examine appear in Tables 6.4 and 6.5, which give the percentage with a supervisory job, the number of employees supervised, the level of independence from supervision on the job, and miles travelled to work. We observe the same pattern for the first three of these measures; supervisory responsibility, and its obverse, job independence, increase from 1976 to 1979, with larger increases for parents than for nonparents. But the highest mean scores on these measures consistently appear for married nonfathers and married fathers with the most recent first births. Within marriage cohorts, childless men tend to have higher scores on these three measures than fathers do. These patterns suggest a marriage rather than a parenthood effect. Because the NLS collected information on these aspects of the current job only on the last two follow-up surveys, we are unable to trace their path over the years in which the birth occurred. Travel time to work, measured only in 1979, shows no consistent variation with timing of marriage and parenthood.

Finally, we examine changes in the characteristics of the occupation in which men expect to work at age 30 and how these characteristics depend on parenthood. Tables 6.6 and 6.7 give the average status scores of the expected career and the percentages of respondents who expect to enter a professional occupation. Apparently, the young men in the NLS had unrealistically high expectations in the early years after high school, because both measures of expectations fall steadily—albeit gradually—until 1979 among all groups of males. These declines appear for married and unmarried fathers no matter what the timing of the first birth. The group nearest to being an exception comprises the wed and unwed fathers who became parents within four months of high school graduation. Since their initial low expectations postdated early parenthood, we speculate that they partly resulted from it. In every year, those young men who remain childless through 1979 have higher expectations than do those who become fathers. Among married fathers, those who delay parenthood longest have the highest expectations. Of course, this relationship need not reflect causation from parenthood to expectations; those who marry and have children relatively soon after high school may simply be more family-oriented and less job-oriented. Or other characteristics may determine both career expectations and timing of family formation.

Figure 6.4 presents the smoothed time series of means for these career expectations, along with the expected time series in the absence of parenthood. Fathers expect to engage in lower-rated occupations than we estimate that they would report if they had not become parents. This measure shows a dip in expectations just prior to the birth, with some recovery after that point. Young fathers' career expectation scores almost always fall below the level we would expect if they had not become parents. Either unmeasured characteristics of the individuals lower their career expectations relative to our estimates, or these expectations respond to the birth of the first child by falling somewhat.

The final variables in our analysis of job and career characteristics measured job satisfaction; we found very little variation in these measures and no parenthood effects. A number of studies of job satisfaction have found high levels of reported satisfaction and relatively little responsiveness of these reports to job characteristics (Kalleberg, 1977). For these reasons, we do not present tables or plots of these measures, one of which was a scale combining measures of satisfaction with various aspects of the job, including pay, working conditions, security, and opportunity; the second reflected responses to a single item measuring satisfaction with the job as a whole.

## SUMMARY AND DISCUSSION

The analysis just presented uncovers substantial changes in the job behavior and attitudes of young adults who become parents. Our methods allow us to attribute a portion of these changes to parenthood, and some to preexisting characteristics of those who become parents during the survey period. We find that women who have a first child and remain employed tend to lose (or give up) occupational status, total weekly earnings, and, to a lesser extent, hourly wages as a result of this birth. They experience a decline in the number of employees that they supervise as well, although there is no change in the supervision that they receive. Because our measures of characteristics of the current job are limited to those who are employed, changes in the characteristics of the employed can affect job characteristics, even if no individual changes jobs. For example, if women with more supervisory responsibility leave the labor force at higher rates than others, the result could be a decline in average supervisory responsibility, even if none of the women remaining at work changed the nature of the jobs.

Men who become fathers tend to be in less prestigious occupations, but there is no evidence of any further decline as a result of parenthood. There is some evidence that men who are about to become fathers increase their hourly wage rates, but this increase seems to occur mostly before the baby is born. In general, the effects of parenthood on men's labor market behavior are in the expected direction; fathers show no perceptible increase in hourly wage rates, weekly earnings, or occupational status, although we see some suggestion that the advantage fathers show in job characteristics erodes following the first birth. But these effects appear to be quite small relative to the substantial effects of marriage indicated in our regression results for nonparents.

These effects are broadly consistent with notions about the impact of the traditional division of labor within the family; even women who remain employed tend to achieve less in their job as a result of motherhood, presumably because they sometimes choose what is best for their family over what is best for their career. Parenthood does not have this effect for fathers; if anything, fatherhood results in an increase in current earnings for men, in part through the higher hourly wages they seem to earn during the time their wives are pregnant and in part through longer hours at work.

The relatively youthful parenthood we observe in the NLS appears to cause fathers to reduce their occupational expectations, although it alters women's relatively little. Men may be responding to the constraints that fatherhood places on their further formal training and their ability to take risks in pursuit of career advancement. Our measure of women's expectations includes homemaking as approximately equal in status to a clerical job and so masks some of the changes with the first birth in status of expected job. Mothers' expectations for professional careers tend to fall as a result of the first birth.

Our analysis also shows marked parenthood effects on womens' expectations of being a full-time homemaker, on their self-identification as a homemaker, and on the percentage for whom homemaking is the primary activity. For all these measures, entry into parenthood pushes women toward assumption of traditional roles. These effects of parenthood occur over and above the often substantial effects of marriage that are indicated in the results of our regression analyses. In some cases, the effects of parenthood, though noteworthy, may be much smaller than the effects of marriage.

We point out that our analyses estimate the average effects of parenthood for parents *as a group*, not the effects for particular individuals. If occupational status scores fall by 7 points for mothers as a consequence of parenthood, this result may reflect a decline for some minority—perhaps quite small—of all women who remain employed after their first birth. In fact, one would expect no change in job characteristics for women who either never leave their job or return to it shortly after the child is born. We report only that *on average* mothers have, for example, jobs with lower status than we would expect if they behaved like childless women. The same is true, of course, for our findings with respect to effects of fatherhood.

Our finding of lowered occupational status following the first birth may also result from selectivity in the process leading to motherhood, or in mothers' decisions to remain in or leave the labor force. Women with relatively low-status occupations may be more likely to have a first birth at the relatively young ages that we are examining than are those with higher-status occupations. If they leave the labor force at the first birth, the average occupational status of those still employed will rise. Or those women with the best jobs could leave the labor force less often with the birth of the first child than those with worse jobs.

# Chapter 7

# EDUCATIONAL ACTIVITIES

## INTRODUCTION

This chapter reports on our analyses of the effects of parenthood on the educational activities of men and women, including their enrollment patterns, educational progress, the time they devote to educational pursuits, and their aspirations for further education. As in our analyses of labor force participation and job and career characteristics, we compare outcomes for parents with those for married and unmarried nonparents, as well as with estimated outcomes for parents if the birth had not occurred.

Considerable research over the past few years has demonstrated that the timing of the life events surrounding family formation is strongly related to educational attainments, especially for women. Women who marry or have children while they are very young complete less formal education (Bacon, 1974; Elder and Rockwell, 1976; Waite and Moore, 1978; Hofferth and Moore, 1979). Marriage and parenthood are strongly related to attrition both in high school (Bacon, 1974; Furstenberg, 1976; Trussell, 1976; Card and Wise, 1978; Presser, 1980; Ortiz and Cooney, 1982) and in college (Bayer, 1968; Folger, Astin, and Bayer, 1970; Trussell, 1976; Card and Wise, 1978). There is disagreement, however, on whether the primary direction of influence runs from family formation to educational attainment (Hofferth and Moore, 1979; Marini, 1984) or from educational attainment to family formation (Rindfuss, Bumpass, and St. John, 1980; Rindfuss and St. John, 1984).

For men, the association between family formation and educational attainment is less clear-cut. Marini (1978) found that an early first marriage reduced educational attainment among women but not among men. Similarly, Alexander and Reilly (1981) found that timing of marriage seemed to influence women's subsequent educational progress more than men's. Moreover, the determinants of postmarriage enrollment appeared to be quite different for men and women. Greater amounts of educational attainment before marriage modestly increased the likelihood that men would continue in school after marrying, but not that women would. Consistent with this finding for men, Kerckhoff and Parrow (1979) found that the amount of education attained before marriage was important for men's subsequent attainment. If a man began college before marriage, getting married before completing college did not seem to affect his subsequent educational progress.

As the foregoing discussion suggests, more attention has been paid to the effects of marriage than to the effects of parenthood on men's educational attainment. Yet there is reason to believe that the effects of parenthood on men's and women's educational activities will be more similar than are the effects of marriage. The reason is that the increased economic burden of having a child is likely to induce married men to increase their labor force activity, even at the expense of educational goals. In the absence of children, marriage need not have this effect, because of the childless wife's freedom (or propensity) to work.

Recent studies of the effects of parenthood on educational activities have all had to contend with two major unresolved issues. The first concerns the extent to which the apparent "effects" of family formation are in fact a result of preexisting differences or self-selection mechanisms. The second issue, not unrelated, concerns the appropriate causal explanation for parenthood effects. Below we briefly review each of these issues. We then discuss the difficulty of distinguishing parenthood effects from the effects of marriage.

### Preexisting Differences and Self-selection

When one is trying to discern the effects of parenthood, it is tempting to view the differences in outcomes experienced by parents and nonparents as "parenthood effects." Unfortunately, our ability to interpret differences in that way is complicated by the likelihood that those who become parents at a given time are different from those who do not in ways that would have shaped outcomes differently even in the absence of parenthood. In Chap. 4 we described some of the differences in background characteristics that distinguish the NLS participants who timed their family formation activities differently. Many of those differences, e.g., in academic ability and socioeconomic background, are likely to lead to different educational outcomes even in the absence of parenthood (Card and Wise 1978; Kiernan, 1980; Haggstrom et al., 1981). For that reason, it is necessary when estimating the effects of parenthood to control for a wide range of background factors. Indeed, in a previous study of NLS respondents (Haggstrom et al., 1981), preexisting differences were found to account for a large share of the subsequent gap in educational attainment between parents and nonparents. Although even after adjustment there remained significant differences in attainment that were possibly due to parenthood, these differences in adjusted outcomes yielded a considerably less dramatic impression of the extent to which early parenthood affects young people's educational progress. Much of the shortfall in educational attainments of young parents would have happened anyway.

### Explanations for Parenthood Effects

Direct interference is commonly mentioned as a way in which parenthood interferes with education. A new baby demands time, childcare, and attention from its parents, who also find themselves needing more money. They are therefore likely to spend more time in paid work (especially fathers) or childcare (especially mothers), and to postpone or abandon education.

That explanation is only one of many plausible ones, however. Most of the others share a common attribute: They view decisions regarding family formation and education as being made within a larger context in which people frame and choose among various life goals. Choices regarding family, education, and career are, in this view, interdependent, often in ways that are quite complex. For example, many young women may plan further schooling and work careers around the contingency that they will meet a suitable future husband. Those who meet a suitable mate early may decide to go no further with their educational and career plans. In such a case, it is entirely possible that a dramatic change in activities and short-term plans reflects little or no change in overarching goals or strategies.

A further difficulty in the analysis of the causal relationships among career, educational, and family choices is that the ordering of events in time may give no clue as to their causal ordering. Many of the "effects" of parenthood on career and educational decisions may be anticipatory, preceding a birth or even a pregnancy. For example, a woman may choose a job partly on the basis of such considerations as maternity leave, availability of part-time work-hours, and convenience to home. If she does so after the baby is born, we do not hesitate to consider her choices to be a consequence of parenthood. Yet many women may apply those same criteria in choosing a job months or even years before the birth of a child. Thus, the anticipation of parenthood can have some of the same effects on education and career decisions as parenthood itself.

By the same token, the existence of a close temporal link between family formation and a shift in educational activities or career plans does not establish which (if either) should be assigned causal priority. The decisions to marry or become a parent are not typically forced on people but are freely chosen in anticipation of their more obvious consequences. Thus, a decision to become a parent in circumstances that will force a young person to leave school is in part a decision to leave school—a decision that might be superordinate, subordinate, or coordinate with the decision to become a parent.

Complexities of timing also enter into the interpretation of outcomes. For example, in considering consequences of parenthood, it is important to distinguish between short-run and long-run effects, because these may be quite different. A first birth may cause some parents to abandon educational plans, others merely to postpone them. Yet the short-term behavior of both groups may be similar. For that reason, our approach to analyzing parenthood effects emphasizes the importance of multiple dependent measures, including educational goals and aspirations as well as more immediate outcomes, such as enrollment status. Analysis of multiple measures gives additional information that can be quite helpful in interpreting findings.

## Distinguishing Marriage and Parenthood Effects

One of our main concerns in the analysis we report is to distinguish the consequences of parenthood from those of marriage. This is especially important in assessing parenthood effects among the NLS respondents who become parents at younger ages, because for them the marriage date is often closely linked to the date of pregnancy, making it difficult to distinguish whether observed changes in outcomes are attributable to marriage, parenthood, or both. In an earlier analysis of NLS data through 1976 (Haggstrom et al., 1981), we found that the estimated effects of marriage on educational progress were substantial, often exceeding in magnitude the estimated parenthood effects.

Our individual effects methodology addresses this problem by comparing the observed outcomes for parents with estimates of what those outcomes would have been in the absence of parenthood. For married parents, these estimates are based on observations from married nonparents, and therefore implicitly take into account the effects of marriage and its timing.

## RESEARCH QUESTIONS

Previous research leads us to expect to find entry into parenthood associated with curtailed schooling. However, few previous studies have addressed the more detailed questions that we explore in our analysis. These include the following:

- Does parenthood limit the amount of schooling completed only among very young parents, or are older parents affected as well?
- How frequently do young people who remain in school after becoming parents reduce their course loads, change from full-time to part-time status, or otherwise limit their schedules without dropping out?
- How does parenthood affect educational expectations? Does the relationship between expectations and attainments suggest that many parents are postponing educational plans?

## MEASURES OF EDUCATIONAL ACTIVITIES

We address those questions with several measures. First, we examine student status of all NLS participants, using an indicator variable coded 1 for those enrolled in a postsecondary institution, and 0 for those not enrolled. Full-time/part-time student status, coded only for those enrolled, is scored 1 for full-time, 0 for part-time. Degree-credit status, reflecting enrollment in a program that leads to an academic degree, is coded 1 if yes, 0 if no. We measure total hours spent in educational pursuits by combining hours in class with estimated hours of homework. Finally, we measure the current and the expected educational attainment of each participant.

## RESULTS FOR WOMEN

Table 7.1 gives the percentage enrolled in school in various years for males and females by timing of marriage and parenthood. Enrollment rates are substantially lower for parents than for married nonparents; in turn, the rates for married nonparents are lower than for single nonparents. For example, in October 1972, when many of the NLS participants began college, only 13 percent of the women who had married and become parents by that time were enrolled in school, compared with 23 percent of those who married but had no children, and 73 percent of those who remained single and childless through October 1979. These same patterns appear for all the years we examine, so that although enrollment falls for all marriage and parenthood categories, by 1979 the percentages of married mothers, married childless women, and single childless women remaining in school are 5.4, 13.1, and 21.5, respectively. Of course, the lower enrollment rates among married mothers do not necessarily result from the *effects* of parenthood, as women who do not intend to continue in school may, for that reason, have a child at earlier ages than women who plan more education.

## Table 7.1

## PERCENTAGE ENROLLED IN SCHOOL FULL-TIME OR PART-TIME BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 72.9 | 66.3 | 60.2 | 38.1 | 21.5 | 2529 | 2508 | 65.5 | 59.7 | 55.5 | 38.4 | 20.0 | 3505 | 3471 |
| Ever Married | 63.8 | 52.5 | 45.6 | 22.4 | 13.1 | 2746 | 2570 | 60.2 | 55.7 | 48.3 | 30.6 | 17.2 | 2410 | 2271 |
| Married Parents | 36.7 | 24.4 | 17.8 | 9.4 | 5.4 | 3699 | 3541 | 38.6 | 30.0 | 23.1 | 16.8 | 9.2 | 2627 | 2476 |
| After 9/76 | 52.0 | 40.7 | 31.3 | 12.9 | 4.6 | 1426 | 1422 | 48.6 | 40.3 | 33.5 | 23.0 | 10.9 | 1263 | 1259 |
| 10/74 - 9/76 | 35.9 | 23.1 | 12.9 | 5.9 | 6.1 | 1057 | 1011 | 36.0 | 25.5 | 16.2 | 12.8 | 6.7 | 755 | 688 |
| 10/73 - 9/74 | 24.2 | 9.1 | 4.9 | 8.1 | 4.5 | 569 | 530 | 21.8 | 14.7 | 6.7 | 9.0 | 7.5 | 293 | 266 |
| 10/72 - 9/73 | 16.9 | 4.2 | 7.1 | 8.6 | 7.7 | 471 | 418 | 23.5 | 15.3 | 16.4 | 11.3 | 10.0 | 217 | 180 |
| Before 10/72 | 13.4 | 7.1 | 7.9 | 8.7 | 3.9 | 126 | 126 | 17.6 | 13.7 | 10.2 | 5.8 | 9.6 | 51 | 49 |
| Adoptive Parents | 47.5 | 27.5 | 25.9 | 14.8 | 11.4 | 80 | 79 | [illegible]7.7 | 25.1 | 19.5 | 11.0 | 8.6 | 184 | 182 |
| Unwed Parents | 40.3 | 28.2 | 21.0 | 18.8 | 10.5 | 759 | 688 | 36.5 | 25.8 | 25.6 | 18.1 | 9.6 | 437 | 384 |
| After 9/76 | 59.7 | 47.1 | 37.7 | 22.5 | 11.4 | 122 | 120 | 38.1 | 27.6 | 30.8 | 25.3 | 9.5 | 103 | 99 |
| 10/74 - 9/76 | 39.5 | 33.0 | 22.6 | 16.7 | 10.0 | 170 | 150 | 42.4 | 35.0 | 29.9 | 17.3 | 13.6 | 133 | 110 |
| 10/73 - 9/74 | 36.7 | 22.7 | 19.7 | 24.6 | 14.4 | 134 | 118 | 36.2 | 16.5 | 20.0 | 15.5 | 9.0 | 74 | 61 |
| 10/72 - 9/73 | 39.6 | 20.3 | 13.0 | 14.4 | 8.5 | 187 | 153 | 32.6 | 21.8 | 23.3 | 17.3 | 4.7 | 80 | 64 |
| Before 10/72 | 29.0 | 22.8 | 17.2 | 18.2 | 9.0 | 144 | 143 | 23.4 | 17.0 | 15.2 | 10.6 | 6.8 | 46 | 44 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 72.9 | 66.3 | 61.9 | 30.0 | 11.6 | 1108 | 1094 | 67.3 | 63.6 | 60.0 | 38.7 | 18.1 | 1292 | 1283 |
| Married Parents | 61.7 | 52.7 | 44.6 | 21.5 | 2.9 | 309 | 307 | 47.9 | 39.7 | 36.8 | 24.7 | 10.6 | 377 | 376 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 70.1 | 59.3 | 49.5 | 16.9 | 12.6 | 831 | 753 | 56.7 | 53.7 | 41.3 | 22.5 | 16.4 | 740 | 651 |
| Married Parents | 56.1 | 47.0 | 36.1 | 10.1 | 4.3 | 803 | 790 | 47.4 | 40.1 | 29.9 | 19.4 | 9.3 | 848 | 815 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 50.0 | 29.8 | 20.1 | 18.4 | 15.7 | 656 | 591 | 44.3 | 34.2 | 23.1 | 19.9 | 15.3 | 350 | 307 |
| Married Parents | 37.5 | 18.5 | 10.4 | 8.3 | 5.9 | 1656 | 1575 | 33.6 | 23.2 | 15.8 | 14.2 | 8.2 | 1147 | 1059 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 23.0 | 13.5 | 17.7 | 15.2 | 16.2 | 143 | 130 | 30.8 | 23.1 | 26.9 | 12.5 | 8.3 | 25 | 24 |
| Married Parents | 10.4 | 6.2 | 6.2 | 6.7 | 6.3 | 919 | 859 | 18.8 | 14.1 | 13.6 | 8.5 | 10.5 | 245 | 219 |

Interestingly, unwed mothers exhibit enrollment rates at least *double* those of married mothers who had a child at about the same time, regardless of when the first birth occurred. Women who bore their first child before 1972, for example, had enrollment rates of 13.4 percent if married at the birth, and 29.0 if unmarried. However, parenthood appears to have similar effects on both groups' persistence with their schooling. Enrollment levels drop sharply for both groups of mothers from the year prior to the year after the first child is born. But because of the substantially higher initial enrollment levels of those women who have their first child while unmarried, in the year after the birth unwed mothers are still much likelier to be in school than women who were married when they gave birth.

The results of our regression analyses, reported in App. B, indicate sizeable negative effects of marriage on women's enrollment rates. In assessing parenthood effects, it is therefore important to ask whether parenthood has any distinguishable effects over and above those associated with marriage. Evidence that it may can be found in the pattern of means for different marriage cohorts, shown in the bottom panel of Table 7.1. For each group of women who married in the same period, mothers have enrollment rates only about a third those of women who married at the same time but remained childless. Among those most recently married 11.6 percent of the childless women and 2.9 percent of the mothers remain in school. For those who married earliest, prior to October of 1972, the pattern is the same, 16.2 versus 6.3 percent enrolled for childless women and mothers, respectively.

Figure 7.1 allows us to compare the actual enrollment rates of married mothers with estimates of their expected enrollment in the absence of the birth. About 13 percent of women are in school prior to their pregnancy. Enrollment begins to fall at about conception, declining to only 2 percent in the month the child is born. From that point, we see a small recovery, but by the child's second birthday only about 6 percent of the married mothers attend some type of school. In the absence of parenthood, we estimate that enrollment rates for these women would fall by about 60 percent (from .32 to .13) over the three-year period as some completed their training and left school. Since the corresponding drop in the actual rates (from .13 to .06) is 54 percent, there is no evidence of sustained negative effects on school enrollment. However, the pronounced drop in the actual enrollment rates during the last few months of pregnancy provides clear evidence that women's educational activities are severely curtailed for approximately three months before and after the birth of the first child.

Our analysis suggests that motherhood decreases school enrollment. Does it also affect other aspects of educational activity? Table 7.2 reports the percentages of students who attend full-time, by timing of marriage and parenthood. The evidence for parenthood effects is mixed. Married mothers who remain in school after their first child is born are somewhat less likely to be enrolled full-time than are either married childless women or single women in the same year. But this pattern does not hold in 1979, when a significantly larger percentage of married mothers are full-time students than is the case for married but childless women (39.9 versus 30.7 percent).

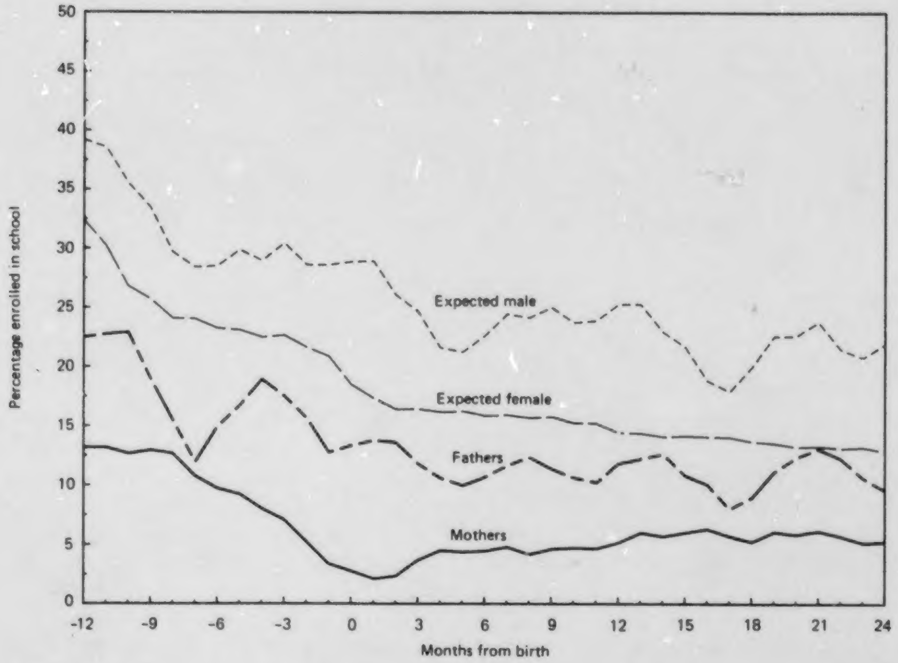

Fig. 7.1—Proportion enrolled in school

Among those who are enrolled, parenthood appears to have no or only weak effects on full-time versus part-time enrollment, a conclusion that is strengthened by examination of marriage cohorts. The lower panel of Table 7.2 shows either modest decrements in full-time enrollment for mothers compared with childless women who married at about the same time, or higher percentages full-time for mothers, especially in 1979. However, the columns giving sample size reveal that relatively few married women remain in school by the later survey years, regardless of parenthood status.

Because of the rather small samples of married women enrolled at some points between 1972 and 1979, our plots of actual and estimated expected full-time status given enrollment are quite unstable, and they show little evidence of consistent parenthood effects in either direction. For this reason we do not present them here.

Does motherhood change the academic program of mothers? Table 7.3 gives the percentage of students who are enrolled in degree-credit programs. We see fewer married mothers in degree-credit programs than married childless women. However, the differences do not appear to be related to motherhood; we see few reductions in the percentages of mothers who are enrolled in academic programs from the year before to the years after birth. Apparently, women who became mothers—either while married or unmarried—prior to

## Table 7.2

## PERCENTAGE OF STUDENTS ENROLLED FULL-TIME BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 90.3 | 88.6 | 86.5 | 69.5 | 41.4 | 1275 | 493 | 92.0 | 90.1 | 88.0 | 76.0 | 54.8 | 1628 | 648 |
| Ever Married | 91.0 | 87.4 | 82.9 | 57.3 | 30.7 | 1068 | 316 | 92.5 | 89.4 | 85.8 | 70.4 | 46.3 | 996 | 363 |
| Married Parents | 87.9 | 82.9 | 73.4 | 47.2 | 39.9 | 669 | 178 | 88.8 | 83.1 | 73.4 | 60.4 | 41.6 | 594 | 209 |
| After 9/76 | 90.3 | 84.8 | 80.2 | 49.5 | 32.8 | 391 | 61 | 91.4 | 87.7 | 77.6 | 66.4 | 36.8 | 378 | 133 |
| 10/74 - 9/76 | 86.6 | 82.4 | 66.7 | 33.3 | 48.3 | 168 | 58 | 85.7 | 84.6 | 66.4 | 46.4 | 52.4 | 140 | 42 |
| 10/73 - 9/74 | 83.0 | 71.7 | 46.4 | 55.6 | 38.1 | 56 | 21 | 82.8 | 57.5 | 61.1 | 50.0 | 41.2 | 33 | 17 |
| 10/72 - 9/73 | 82.7 | 64.7 | 37.5 | 42.5 | 38.7 | 40 | 17 | 86.8 | 58.3 | 61.1 | 62.5 | 53.8 | 32 | 13 |
| Before 10/72 | 73.3 | 77.8 | 60.0 | 72.7 | 20.0 | 10 | 5 | 62.5 | 33.3 | 50.0 | 0.0 | 50.0 | 5 | 3 |
| Adoptive Parents | 94.7 | 86.4 | 81.0 | 58.3 | 22.2 | 20 | 9 | 90.8 | 81.0 | 82.9 | 35.0 | 37.5 | 35 | 16 |
| Unwed Parents | 77.8 | 77.2 | 75.9 | 71.4 | 47.6 | 171 | 63 | 86.1 | 83.2 | 77.7 | 66.2 | 56.3 | 96 | 32 |
| After 9/76 | 79.4 | 81.5 | 77.3 | 66.7 | 53.8 | 41 | 13 | 84.6 | 73.1 | 78.1 | 64.0 | 77.8 | 26 | 9 |
| 10/74 - 9/76 | 84.4 | 72.3 | 80.0 | 65.5 | 23.1 | 38 | 13 | 87.5 | 90.0 | 84.6 | 70.8 | 15.4 | 34 | 13 |
| 10/73 - 9/74 | 87.0 | 73.1 | 89.3 | 75.8 | 60.0 | 29 | 15 | 88.5 | 81.8 | 87.5 | 54.5 | 75.0 | 13 | 4 |
| 10/72 - 9/73 | 71.8 | 92.3 | 76.0 | 72.0 | 63.6 | 35 | 11 | 77.8 | 83.3 | 66.7 | 75.0 | 100.0 | 15 | 3 |
| Before 10/72 | 65.9 | 61.3 | 52.0 | 76.9 | 36.4 | 26 | 11 | 100.0 | 83.3 | 42.9 | 60.0 | 100.0 | 6 | 3 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 91.3 | 89.6 | 86.6 | 62.2 | 26.5 | 531 | 117 | 92.7 | 90.6 | 87.9 | 74.2 | 44.0 | 627 | 218 |
| Married Parents | 91.4 | 88.6 | 84.1 | 57.6 | 33.3 | 109 | 9 | 88.4 | 88.2 | 81.4 | 76.3 | 53.8 | 116 | 39 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 91.6 | 88.7 | 85.3 | 57.6 | 28.1 | 341 | 89 | 92.1 | 88.6 | 85.9 | 63.2 | 47.4 | 272 | 97 |
| Married Parents | 89.9 | 87.7 | 82.6 | 51.9 | 45.2 | 238 | 31 | 92.1 | 89.6 | 75.7 | 62.2 | 33.8 | 236 | 71 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 89.8 | 78.6 | 65.4 | 44.4 | 35.6 | 170 | 90 | 93.1 | 84.2 | 68.8 | 61.1 | 55.6 | 91 | 45 |
| Married Parents | 86.8 | 77.4 | 56.5 | 41.6 | 36.0 | 257 | 86 | 87.5 | 76.3 | 68.0 | 51.5 | 39.5 | 210 | 81 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 81.3 | 55.6 | 38.5 | 54.5 | 47.4 | 23 | 18 | 75.0 | 83.3 | 42.9 | 66.7 | 0.0 | 5 | 2 |
| Married Parents | 77.3 | 66.1 | 50.9 | 42.6 | 45.1 | 62 | 51 | 72.7 | 51.5 | 50.0 | 42.9 | 58.8 | 29 | 17 |

## Table 7.3

## PERCENTAGE OF STUDENTS ENROLLED IN A DEGREE-CREDIT PROGRAM BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 81.8 | 87.2 | 89.5 | 86.7 | 80.7 | 1293 | 522 | 86.1 | 87.8 | 89.1 | 89.5 | 85.1 | 1658 | 679 |
| Ever Married | 76.0 | 81.9 | 84.4 | 80.1 | 74.0 | 1080 | 323 | 83.7 | 84.2 | 88.8 | 85.4 | 81.2 | 1015 | 378 |
| Married Parents | 62.7 | 68.2 | 72.3 | 67.8 | 66.9 | 683 | 181 | 70.0 | 70.4 | 75.5 | 67.5 | 67.6 | 611 | 216 |
| After 9/76 | 70.4 | 72.5 | 79.1 | 75.6 | 68.8 | 397 | 64 | 75.0 | 74.3 | 80.3 | 72.0 | 68.7 | 387 | 131 |
| 10/74 - 9/76 | 57.6 | 65.3 | 61.6 | 56.7 | 67.3 | 175 | 55 | 63.9 | 64.3 | 73.8 | 55.6 | 77.8 | 144 | 45 |
| 10/73 - 9/74 | 46.3 | 50.9 | 59.3 | 52.3 | 52.2 | 56 | 23 | 60.3 | 64.4 | 50.0 | 76.9 | 52.6 | 34 | 19 |
| 10/72 - 9/73 | 44.7 | 28.6 | 37.5 | 56.4 | 65.6 | 40 | 21 | 64.2 | 69.4 | 52.8 | 50.0 | 52.9 | 33 | 17 |
| Before 10/72 | 56.3 | 66.7 | 70.0 | 54.5 | 100.0 | 10 | 4 | 25.0 | 42.9 | 0.0 | 100.0 | 50.0 | 5 | 3 |
| Adoptive Parents | 52.8 | 59.1 | 52.4 | 75.0 | 75.0 | 19 | 8 | 68.2 | 69.6 | 77.8 | 72.2 | 55.3 | 36 | 16 |
| Unwed Parents | 58.9 | 64.8 | 70.3 | 72.8 | 63.5 | 174 | 63 | 69.7 | 78.6 | 73.7 | 62.0 | 82.9 | 100 | 35 |
| After 9/76 | 75.0 | 77.2 | 78.3 | 79.2 | 69.2 | 42 | 13 | 65.0 | 82.8 | 73.3 | 56.0 | 70.0 | 26 | 10 |
| 10/74 - 9/76 | 53.8 | 60.7 | 72.5 | 80.0 | 60.0 | 40 | 15 | 69.0 | 77.1 | 80.5 | 60.9 | 85.7 | 36 | 14 |
| 10/73 - 9/74 | 68.0 | 78.1 | 60.7 | 70.0 | 73.3 | 31 | 15 | 75.0 | 100.0 | 75.0 | 100.0 | 100.0 | 14 | 6 |
| 10/72 - 9/73 | 44.7 | 51.2 | 76.9 | 73.9 | 40.0 | 35 | 10 | 78.6 | 63.2 | 65.0 | 55.6 | 100.0 | 15 | 2 |
| Before 10/72 | 53.8 | 54.5 | 56.0 | 60.9 | 70.0 | 26 | 10 | 54.5 | 75.0 | 57.1 | 40.0 | 66.7 | 6 | 3 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 84.2 | 85.5 | 87.7 | 81.0 | 78.4 | 532 | 125 | 86.3 | 87.2 | 90.9 | 87.7 | 84.6 | 631 | 228 |
| Married Parents | 76.9 | 73.0 | 84.2 | 79.4 | 33.3 | 112 | 9 | 72.2 | 73.8 | 82.5 | 76.1 | 71.8 | 118 | 39 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 75.1 | 80.6 | 83.3 | 78.7 | 72.2 | 348 | 90 | 80.4 | 79.9 | 85.4 | 83.2 | 76.2 | 282 | 101 |
| Married Parents | 70.0 | 75.0 | 79.9 | 82.1 | 78.1 | 244 | 32 | 74.9 | 71.1 | 81.6 | 69.8 | 72.2 | 244 | 72 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 60.6 | 73.2 | 76.3 | 83.3 | 68.9 | 175 | 90 | 77.8 | 77.7 | 94.5 | 73.9 | 76.1 | 95 | 46 |
| Married Parents | 56.1 | 63.5 | 50.8 | 62.6 | 67.4 | 262 | 89 | 66.3 | 69.9 | 68.9 | 60.6 | 67.5 | 215 | 83 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 46.9 | 68.4 | 53.8 | 55.0 | 76.5 | 22 | 17 | 87.5 | 83.3 | 71.4 | 100.0 | 50.0 | 5 | 2 |
| Married Parents | 41.4 | 36.2 | 40.4 | 48.3 | 63.3 | 62 | 49 | 51.1 | 54.3 | 36.4 | 66.7 | 47.6 | 31 | 21 |

October 1979 were on different academic paths before they entered motherhood.

Next, we examine the hours devoted to educational activities, using two measures of these activities: one that includes only students and one that includes nonstudents at zero hours. Table 7.4 presents the first of these measures, Table 7.5 the second. Hours per week in educational activities for students (an estimate of the total amount of time spent in class and in homework) duplicates and expands the analysis of full-time versus part-time enrollment for students. When the same measure includes nonstudents, it shows the combined effects of school-leaving and shifts from full-time to part-time status. Table 7.4 shows a small but consistent reduction in hours devoted to educational activities for married mothers enrolled in school. But it is interesting to note that these women spend 20 hours per week or more, on average, either attending classes or preparing for them. Comparison within marriage cohorts also suggests that if a woman remains in school, she devotes as much time to educational activities if she has a child as if she does not.

However, when one includes nonstudents in the calculations, the picture changes. First, in every year covered by the survey, childless women devote more hours to schooling than do married or unmarried mothers. These differences are especially pronounced in the early years after high school. Second, hours in education fall by more than half for married mothers from the year before to the year after the birth and remain at fairly low levels in later years. The same general pattern exists for unmarried mothers, although there are some reversals. Among cohorts of women who married at about the same time, mothers average many fewer hours in educational activities than childless women do.

The plot of time devoted to education among all respondents (Fig. 7.2) shows that during pregnancy and for a few months following the birth, mothers spend much less time in educational activities than we would expect in the absence of parenthood. The temporary decline in activities shown in Fig. 7.2 parallels the decline in enrollment shown in Fig. 7.1. As noted earlier, we found no evidence of reduced activity around the time of the birth for mothers who remained in school. We conclude from this that, for the most part, the effects of parenthood on women's educational activities take place through the mechanism of school enrollment, not through changes in activities for those who remain enrolled. We discuss this point more in our conclusion to this chapter.

Finally, we compare actual educational attainment (Table 7.6) with educational expectations (Table 7.7) by timing of marriage and parenthood. This comparison gives us some evidence about whether changes in response to parenthood represent permanent alterations or merely postponements of long-range plans. Table 7.6 shows that both married and unmarried mothers have completed fewer years of schooling, on average, in every year than married nonmothers, who in turn have completed slightly less than single women. In general, educational attainment rises with the delay in the first birth, so that the most recent mothers, both married and single, have more schooling than those who gave birth earlier. And mothers have less education than childless

## Table 7.4

## HOURS SPENT PER WEEK IN EDUCATIONAL ACTIVITIES FOR STUDENTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 36.0 | 35.7 | 35.2 | 30.7 | 22.4 | 1197 | 469 | 36.5 | 36.0 | 35.5 | 32.6 | 26.3 | 1524 | 598 |
| Ever Married | 36.1 | 35.3 | 34.4 | 27.1 | 19.2 | 1008 | 309 | 36.8 | 36.0 | 35.0 | 31.0 | 24.1 | 933 | 341 |
| Married Parents | 35.0 | 34.1 | 31.9 | 23.9 | 21.5 | 613 | 171 | 35.3 | 34.2 | 31.7 | 27.8 | 22.7 | 548 | 204 |
| After 9/76 | 35.9 | 34.9 | 34.0 | 24.9 | 20.0 | 357 | 58 | 36.3 | 35.6 | 33.2 | 29.5 | 21.4 | 351 | 129 |
| 10/74 - 9/76 | 34.8 | 34.2 | 29.4 | 21.6 | 22.6 | 155 | 57 | 34.3 | 34.1 | 29.3 | 23.3 | 25.0 | 128 | 42 |
| 10/73 - 9/74 | 32.4 | 28.5 | 22.4 | 24.6 | 20.8 | 52 | 20 | 33.5 | 26.9 | 27.5 | 24.9 | 23.7 | 30 | 15 |
| 10/72 - 9/73 | 31.6 | 26.1 | 21.1 | 21.3 | 22.0 | 35 | 17 | 32.7 | 26.9 | 26.9 | 28.8 | 27.1 | 29 | 13 |
| Before 10/72 | 33.7 | 34.0 | 28.1 | 29.8 | 19.4 | 8 | 5 | 23.2 | 25.0 | 19.7 | 23.3 | 20.8 | 4 | 3 |
| Adoptive Parents | 35.4 | 33.6 | 33.9 | 28.6 | 17.3 | 18 | 9 | 36.4 | 34.0 | 33.4 | 24.1 | 20.6 | 33 | 15 |
| Unwed Parents | 32.4 | 31.4 | 31.8 | 30.0 | 23.8 | 150 | 59 | 34.2 | 33.1 | 33.2 | 28.7 | 26.2 | 85 | 32 |
| After 9/76 | 32.0 | 32.4 | 32.8 | 27.7 | 26.9 | 35 | 13 | 33.0 | 30.1 | 35.8 | 28.6 | 30.1 | 23 | 9 |
| 10/74 - 9/76 | 34.0 | 30.0 | 33.2 | 29.9 | 18.5 | 33 | 13 | 35.8 | 36.1 | 34.2 | 30.3 | 16.0 | 30 | 13 |
| 10/73 - 9/74 | 35.2 | 30.6 | 34.4 | 30.4 | 26.3 | 26 | 13 | 33.4 | 32.7 | 35.3 | 28.0 | 32.0 | 12 | 4 |
| 10/72 - 9/73 | 31.7 | 35.5 | 30.7 | 29.8 | 26.6 | 31 | 10 | 32.6 | 32.2 | 28.3 | 25.8 | 39.3 | 14 | 3 |
| Before 10/72 | 29.1 | 27.4 | 25.1 | 32.9 | 20.7 | 22 | 10 | 36.9 | 30.2 | 24.8 | 27.5 | 37.7 | 5 | 3 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 36.2 | 36.1 | 35.2 | 28.5 | 18.3 | 496 | 114 | 36.9 | 36.3 | 35.7 | 32.1 | 23.6 | 589 | 205 |
| Married Parents | 36.2 | 35.7 | 35.9 | 27.0 | 19.7 | 98 | 9 | 35.5 | 35.5 | 34.2 | 32.8 | 26.0 | 108 | 39 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 36.1 | 35.5 | 35.3 | 26.5 | 17.8 | 325 | 88 | 36.6 | 35.7 | 35.0 | 28.6 | 24.3 | 253 | 91 |
| Married Parents | 35.7 | 35.4 | 34.3 | 25.4 | 23.1 | 220 | 30 | 36.7 | 36.0 | 32.9 | 28.3 | 19.9 | 218 | 67 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 35.9 | 32.8 | 29.9 | 24.4 | 20.5 | 162 | 87 | 36.9 | 34.6 | 29.5 | 29.1 | 26.7 | 85 | 42 |
| Married Parents | 34.3 | 32.6 | 26.5 | 22.1 | 20.7 | 238 | 85 | 34.5 | 32.2 | 29.5 | 24.4 | 22.6 | 195 | 80 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 33.9 | 28.4 | 21.1 | 24.7 | 25.1 | 22 | 17 | 31.6 | 30.7 | 23.2 | 28.3 | 12.0 | 5 | 2 |
| Married Parents | 33.0 | 29.5 | 24.8 | 22.8 | 22.5 | 54 | 46 | 28.5 | 25.6 | 22.7 | 26.4 | 26.8 | 25 | 17 |

## Table 7.5

## HOURS SPENT IN EDUCATIONAL ACTIVITIES FOR ALL NLS RESPONDENTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 25.5 | 22.6 | 20.5 | 11.5 | 4.3 | 2413 | 2348 | 23.0 | 20.4 | 18.9 | 12.3 | 4.7 | 3350 | 3286 |
| Ever Married | 22.2 | 17.6 | 15.2 | 5.9 | 2.3 | 2657 | 2542 | 21.2 | 18.9 | 16.1 | 9.2 | 3.7 | 2313 | 2222 |
| Married Parents | 11.6 | 7.3 | 5.2 | 2.2 | 1.0 | 3611 | 3520 | 12.4 | 9.2 | 6.6 | 4.5 | 1.9 | 2550 | 2453 |
| After 9/76 | 17.5 | 12.9 | 10.0 | 3.1 | 0.8 | 1379 | 1338 | 16.5 | 13.0 | 10.3 | 6.5 | 2.2 | 1219 | 1189 |
| 10/74 - 9/76 | 11.3 | 6.9 | 3.4 | 1.2 | 1.3 | 1034 | 1006 | 11.0 | 7.7 | 4.2 | 2.8 | 1.5 | 734 | 684 |
| 10/73 - 9/74 | 6.9 | 2.5 | 0.9 | 1.9 | 0.8 | 562 | 526 | 6.4 | 3.4 | 1.4 | 2.2 | 1.4 | 288 | 262 |
| 10/72 - 9/73 | 4.3 | 0.9 | 1.2 | 1.8 | 1.5 | 465 | 415 | 6.8 | 3.7 | 3.8 | 3.3 | 2.0 | 212 | 175 |
| Before 10/72 | 3.3 | 2.2 | 1.8 | 2.6 | 0.8 | 125 | 122 | 2.9 | 2.6 | 1.3 | 1.3 | 1.6 | 49 | 47 |
| Adoptive Parents | 15.6 | 8.9 | 7.8 | 4.2 | 2.0 | 78 | 75 | 13.0 | 7.5 | 6.1 | 2.4 | 1.7 | 180 | 176 |
| Unwed Parents | 11.1 | 7.3 | 5.9 | 5.4 | 2.1 | 726 | 675 | 11.2 | 6.8 | 7.3 | 4.7 | 2.2 | 419 | 379 |
| After 9/76 | 17.0 | 13.2 | 10.9 | 6.2 | 2.9 | 114 | 107 | 11.3 | 6.8 | 9.5 | 7.2 | 2.6 | 99 | 98 |
| 10/74 - 9/76 | 11.0 | 8.0 | 6.5 | 5.0 | 1.6 | 162 | 148 | 13.4 | 9.8 | 8.9 | 5.1 | 1.9 | 125 | 108 |
| 10/73 - 9/74 | 10.6 | 4.9 | 6.6 | 7.3 | 3.0 | 128 | 114 | 11.0 | 4.3 | 6.0 | 3.7 | 2.2 | 71 | 59 |
| 10/72 - 9/73 | 11.1 | 6.2 | 3.7 | 4.1 | 1.8 | 182 | 150 | 9.8 | 6.4 | 5.5 | 3.3 | 1.8 | 77 | 64 |
| Before 10/72 | 7.1 | 5.5 | 3.6 | 5.2 | 1.5 | 139 | 136 | 8.0 | 3.4 | 3.3 | 2.4 | 2.6 | 45 | 44 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 25.7 | 23.1 | 21.3 | 8.3 | 1.9 | 1065 | 1038 | 24.1 | 22.2 | 20.7 | 12.1 | 3.8 | 1240 | 1219 |
| Married Parents | 21.0 | 16.8 | 15.2 | 5.5 | 0.6 | 294 | 278 | 15.9 | 12.7 | 12.0 | 7.9 | 2.7 | 365 | 355 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 24.6 | 20.1 | 17.0 | 4.4 | 2.1 | 804 | 746 | 19.5 | 17.7 | 13.7 | 6.3 | 3.5 | 707 | 635 |
| Married Parents | 18.9 | 15.3 | 11.7 | 2.5 | 0.9 | 775 | 753 | 16.0 | 13.2 | 8.8 | 5.3 | 1.7 | 816 | 802 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 16.8 | 9.1 | 5.6 | 4.5 | 3.1 | 641 | 585 | 14.7 | 10.7 | 6.2 | 5.7 | 3.7 | 338 | 302 |
| Married Parents | 11.8 | 5.4 | 2.4 | 1.7 | 1.1 | 1624 | 1567 | 10.6 | 6.6 | 4.1 | 3.3 | 1.7 | 1121 | 1052 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 7.1 | 3.3 | 3.7 | 3.6 | 3.7 | 141 | 128 | 9.7 | 7.1 | 5.6 | 3.5 | 1.0 | 25 | 24 |
| Married Parents | 2.4 | 1.6 | 1.2 | 1.5 | 1.2 | 907 | 851 | 4.2 | 2.9 | 2.4 | 2.3 | 2.1 | 238 | 213 |

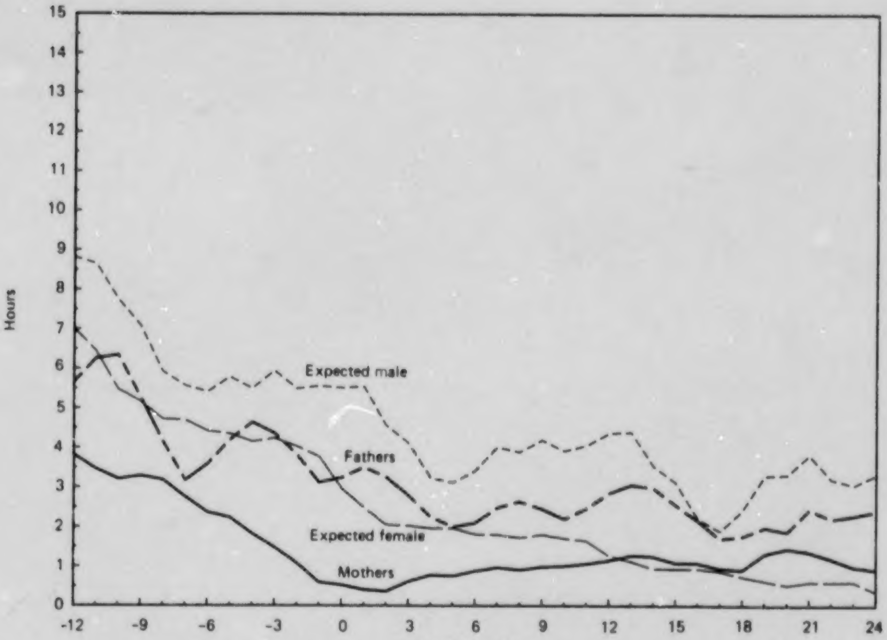

Fig. 7.2—Hours per week in educational activities, all respondents

women who married at about the same time (lower panel of Table 7.6). All of these differences could result from characteristics of the women that predisposed them to both lower educational attainment and earlier childbearing.

We see in Table 7.7 that educational expectations tend to follow actual attainment, at least to the extent that married mothers expect (and have) less schooling than married childless women, who in turn expect (and have) less than single women. Of course, women who want relatively large amounts of formal schooling may delay marriage and parenthood because of these preferences, as a number of researchers (Cain, 1966; Bowen and Finegan, 1969) have suggested. Note that unmarried mothers expect half a year more education, on average, than married women who had a child at about the same time. Perhaps surprisingly, the higher educational expectations of unwed mothers are not unrealistic, but foreshadow their higher attainment, especially in later years. The differences we observe between married and unmarried mothers are consistent with the notion that marriage has a depressing effect on women's schooling.

The results in Table 7.7 suggest different patterns of change in expected education depending on timing of marriage and parenthood. Women who remain childless through the last survey in October 1979 tend to increase the

# Table 7.6

## YEARS OF SCHOOLING COMPLETED BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 12.7 | 12.8 | 13.3 | 14.0 | 14.6 | 2446 | 2317 | 12.6 | 12.7 | 13.1 | 13.7 | 14.4 | 3389 | 3205 |
| Ever Married | 12.6 | 12.7 | 13.1 | 13.7 | 14.1 | 2657 | 2578 | 12.6 | 12.7 | 13.0 | 13.6 | 14.3 | 2328 | 2241 |
| Married Parents | 12.4 | 12.4 | 12.5 | 12.8 | 13.0 | 3598 | 3500 | 12.4 | 12.4 | 12.6 | 13.0 | 13.3 | 2521 | 2393 |
| After 9/76 | 12.5 | 12.6 | 12.8 | 13.2 | 13.4 | 1387 | 1331 | 12.5 | 12.5 | 12.8 | 13.2 | 13.6 | 1213 | 1140 |
| 10/74 - 9/76 | 12.4 | 12.4 | 12.5 | 12.7 | 12.8 | 1024 | 985 | 12.3 | 12.4 | 12.5 | 12.8 | 13.0 | 725 | 688 |
| 10/73 - 9/74 | 12.2 | 12.3 | 12.3 | 12.4 | 12.6 | 555 | 528 | 12.2 | 12.3 | 12.3 | 12.5 | 12.8 | 282 | 267 |
| 10/72 - 9/73 | 12.2 | 12.2 | 12.2 | 12.3 | 12.5 | 463 | 423 | 12.2 | 12.3 | 12.3 | 12.6 | 12.9 | 208 | 180 |
| Before 10/72 | 12.1 | 12.2 | 12.2 | 12.4 | 12.6 | 125 | 123 | 12.2 | 12.2 | 12.2 | 12.4 | 12.7 | 49 | 45 |
| Adoptive Parents | 12.4 | 12.5 | 12.7 | 13.0 | 13.2 | 79 | 77 | 12.4 | 12.4 | 12.6 | 12.8 | 13.1 | 175 | 165 |
| Unwed Parents | 12.4 | 12.4 | 12.6 | 12.8 | 13.1 | 729 | 694 | 12.4 | 12.4 | 12.6 | 12.8 | 13.2 | 418 | 388 |
| After 9/76 | 12.6 | 12.6 | 12.8 | 13.2 | 13.6 | 118 | 110 | 12.4 | 12.5 | 12.6 | 13.0 | 13.3 | 100 | 94 |
| 10/74 - 9/76 | 12.4 | 12.5 | 12.6 | 12.9 | 13.1 | 160 | 150 | 12.4 | 12.5 | 12.7 | 13.0 | 13.3 | 126 | 110 |
| 10/73 - 9/74 | 12.4 | 12.4 | 12.5 | 12.8 | 13.1 | 129 | 117 | 12.4 | 12.4 | 12.5 | 12.7 | 13.0 | 70 | 61 |
| 10/72 - 9/73 | 12.4 | 12.4 | 12.4 | 12.7 | 12.9 | 180 | 154 | 12.3 | 12.4 | 12.5 | 12.8 | 13.1 | 76 | 64 |
| Before 10/72 | 12.3 | 12.4 | 12.4 | 12.6 | 12.8 | 140 | 135 | 12.2 | 12.2 | 12.3 | 12.6 | 12.9 | 45 | 42 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 12.7 | 12.8 | 13.3 | 14.1 | 14.5 | 1075 | 1031 | 12.7 | 12.7 | 13.2 | 13.9 | 14.6 | 1253 | 1188 |
| Married Parents | 12.6 | 12.7 | 13.0 | 13.5 | 13.8 | 303 | 291 | 12.5 | 12.5 | 12.8 | 13.3 | 13.7 | 362 | 340 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 12.7 | 12.7 | 13.2 | 13.9 | 14.2 | 805 | 764 | 12.6 | 12.6 | 13.0 | 13.5 | 14.0 | 709 | 659 |
| Married Parents | 12.6 | 12.6 | 12.9 | 13.3 | 13.5 | 777 | 742 | 12.5 | 12.5 | 12.8 | 13.2 | 13.5 | 812 | 765 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 12.5 | 12.5 | 12.7 | 13.0 | 13.4 | 631 | 598 | 12.4 | 12.5 | 12.7 | 13.0 | 13.4 | 339 | 317 |
| Married Parents | 12.4 | 12.4 | 12.5 | 12.7 | 12.8 | 1611 | 1559 | 12.3 | 12.4 | 12.5 | 12.8 | 13.1 | 1104 | 1051 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 12.2 | 12.2 | 12.4 | 12.7 | 13.0 | 140 | 132 | 12.3 | 12.3 | 12.5 | 12.8 | 13.0 | 25 | 24 |
| Married Parents | 12.1 | 12.1 | 12.2 | 12.3 | 12.5 | 896 | 863 | 12.2 | 12.2 | 12.3 | 12.5 | 12.8 | 234 | 221 |

## Table 7.7

## YEARS OF SCHOOLING EXPECTED BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 15.2 | 15.3 | 15.5 | 16.0 | 15.9 | 2253 | 1571 | 15.3 | 15.5 | 15.6 | 15.8 | 15.6 | 3066 | 2073 |
| Ever Married | 14.6 | 14.6 | 14.8 | 15.2 | 15.0 | 2426 | 1707 | 15.2 | 15.2 | 15.3 | 15.5 | 15.3 | 2092 | 1455 |
| Married Parents | 13.7 | 13.5 | 13.5 | 13.7 | 13.6 | 3136 | 2015 | 14.2 | 14.1 | 14.1 | 14.3 | 14.1 | 2172 | 1326 |
| After 9/76 | 14.2 | 14.0 | 14.1 | 14.2 | 14.1 | 1231 | 810 | 14.6 | 14.5 | 14.6 | 14.7 | 14.5 | 1069 | 681 |
| 10/74 - 9/76 | 13.6 | 13.4 | 13.3 | 13.6 | 13.5 | 891 | 571 | 14.1 | 13.7 | 13.8 | 14.0 | 13.7 | 618 | 369 |
| 10/73 - 9/74 | 13.3 | 12.9 | 13.0 | 13.4 | 13.2 | 480 | 310 | 13.6 | 13.4 | 13.3 | 13.7 | 13.4 | 241 | 136 |
| 10/72 - 9/73 | 13.2 | 12.9 | 13.0 | 13.2 | 13.1 | 395 | 248 | 13.4 | 13.6 | 13.5 | 13.7 | 13.6 | 175 | 99 |
| Before 10/72 | 12.8 | 13.1 | 13.1 | 13.4 | 13.3 | 106 | 56 | 12.6 | 13.0 | 12.8 | 13.7 | 13.2 | 40 | 20 |
| Adoptive Parents | 13.7 | 13.6 | 13.6 | 14.3 | 13.9 | 69 | 43 | 13.8 | 14.2 | 14.1 | 14.3 | 13.9 | 152 | 90 |
| Unwed Parents | 14.0 | 13.9 | 14.0 | 14.3 | 14.0 | 627 | 309 | 14.1 | 14.3 | 14.4 | 14.5 | 14.2 | 348 | 178 |
| After 9/76 | 14.3 | 14.7 | 14.9 | 15.1 | 14.7 | 102 | 58 | 14.1 | 14.1 | 14.6 | 14.3 | 14.2 | 85 | 45 |
| 10/74 - 9/76 | 14.1 | 13.9 | 13.9 | 14.2 | 14.0 | 139 | 74 | 14.6 | 14.6 | 14.5 | 14.7 | 14.4 | 105 | 60 |
| 10/73 - 9/74 | 14.1 | 13.9 | 13.8 | 14.4 | 14.3 | 110 | 51 | 13.7 | 14.2 | 14.4 | 14.3 | 14.0 | 55 | 21 |
| 10/72 - 9/73 | 13.8 | 13.7 | 13.8 | 14.1 | 13.6 | 158 | 87 | 13.9 | 14.3 | 14.3 | 14.7 | 14.0 | 64 | 34 |
| Before 10/72 | 13.6 | 13.5 | 13.7 | 13.9 | 13.8 | 115 | 39 | 13.6 | 14.0 | 13.7 | 14.0 | 14.1 | 37 | 18 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 15.1 | 15.2 | 15.5 | 15.8 | 15.5 | 992 | 700 | 15.5 | 15.6 | 15.7 | 15.9 | 15.7 | 1141 | 793 |
| Married Parents | 14.8 | 14.5 | 14.7 | 14.8 | 14.6 | 269 | 178 | 14.5 | 14.7 | 14.8 | 14.9 | 14.6 | 320 | 204 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 14.8 | 14.7 | 14.9 | 15.2 | 15.1 | 738 | 530 | 15.0 | 15.0 | 15.1 | 15.2 | 15.0 | 640 | 458 |
| Married Parents | 14.4 | 14.2 | 14.3 | 14.4 | 14.2 | 688 | 451 | 14.6 | 14.5 | 14.5 | 14.6 | 14.4 | 705 | 445 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 14.0 | 13.8 | 14.0 | 14.3 | 14.3 | 567 | 390 | 14.4 | 14.4 | 14.4 | 14.5 | 14.3 | 289 | 188 |
| Married Parents | 13.6 | 13.2 | 13.3 | 13.6 | 13.4 | 1406 | 915 | 14.0 | 13.7 | 13.7 | 14.0 | 13.8 | 946 | 565 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 13.2 | 13.3 | 13.5 | 14.0 | 13.8 | 123 | 82 | 13.6 | 14.2 | 13.7 | 13.9 | 13.4 | 21 | 13 |
| Married Parents | 13.0 | 12.9 | 12.9 | 13.2 | 13.1 | 764 | 465 | 13.2 | 13.3 | 13.4 | 13.6 | 13.5 | 194 | 107 |

years of schooling they expect, on average, between the first and last follow-up survey. But those who become mothers by the last survey, whether in or out of wedlock, expect nearly the same amount of education in the last year as they had at baseline. We see no evidence that motherhood causes women to lower their educational goals in an absolute sense, but perhaps it keeps them from raising them in line with secular trends. Consistent with the above, the data at the bottom of the table on marriage cohorts reveal more sizeable increases in educational expectations among married women who remain childless than among those who wed at the same time but also became mothers.

Figure 7.3 plots married mothers' expectations for their educational attainment along with our estimates of their expectations in the absence of parenthood. Women's expectations for their ultimate level of schooling decline slightly during the pregnancy, begin to rise at about the time of the birth, and remain fairly stable thereafter. All these changes are rather slight, however, and mothers expect two years after the birth that they will eventually complete about as many years of schooling as they expected to complete prior to the pregnancy. Our estimates of how much schooling they would have expected indicate how these expectations would have changed in the absence of parenthood. The decline would have been somewhat sharper than it actually was, according to our estimates, which suggests that women do not lower their edu-

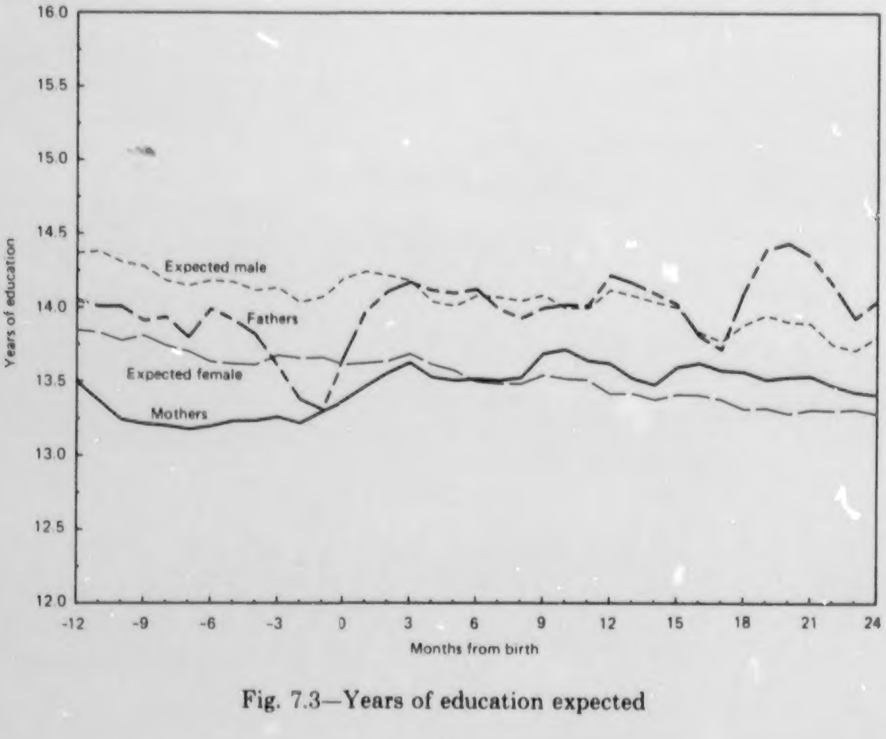

Fig. 7.3—Years of education expected

cational expectations as a result of their first birth, and may even raise them slightly. Such an effect could occur for any number of reasons; for example, motherhood may provide women with an additional impetus to increase their eventual earnings; education may provide stimulation or a way to get out of the house; some women may perceive education as a way to improve their mothering skills; the birth may motivate women to achieve for the sake of the child. These explanations do not all neatly fit with conventional views of how women's roles change with motherhood.

## RESULTS FOR MEN

The results for males are presented in the right-hand panels of the tables we have just reviewed in presenting results for females. Table 7.1 shows the percentages of men who were enrolled in school during each of the survey years, by marital status and timing of parenthood. If we compare groups within survey years, it is apparent that fathers are consistently less likely to be enrolled than childless married men, and the latter less likely than single nonparents. In this respect, the results for males resemble those for females, although the percentage differences are smaller than for women.

Comparison of unwed fathers with single nonparents reveals a similar, but more dramatic, difference in enrollment rates. At any given time, single fathers are only about half as likely to be enrolled as nonfathers—a difference that is comparable in magnitude to the one observed for women.

Are the differences between fathers and childless men attributable to parenthood, or do they result from other factors, such as preexisting differences between groups that would have resulted in different patterns of enrollment even if the fathers had remained childless? Inspection of changes in enrollment rates around the time of parenthood (Table 7.1) shows little evidence that the differences between parents and nonparents widen around the time of parenthood, as one would expect they would if there were true parenthood effects. For example, married men who became parents between 1973 and 1974 show a drop from 14.7 percent enrolled to 6.7 percent enrolled between those two years. This drop of 8.0 percentage points is not much different from the 6.9 percentage point drop for all married parents or the 7.4 percentage point drop for ever-married nonparents.

Figure 7.1 shows how enrollment rates for married fathers change in relationship to the timing of the birth. Since there is no noticeable closing of the gap between the plots for the actual and estimated enrollment rates, we conclude that the negative and positive effects of parenthood tend to balance out for the males. The large initial gap in the figure does *not* indicate parenthood effects, but could reflect (among other things) the reverse causal pattern; that is, an effect of being in school on the probability of becoming a parent.

Table 7.2 reports on the percentage of men, among those attending school, who are enrolled full-time. It is clear that married fathers are much less likely to be enrolled full-time than are married or unmarried nonparents. Moreover, for this variable there is a strong relationship to the timing of parenthood. Note the sharp drops in full-time enrollment during the year preceding and/or following the birth for men who became parents in 1972–1973, 1973–1974, and 1974–1976.

It is also worth noting that the arrays of percentages at the bottom of the table indicate substantial marriage effects for men. This can be seen by comparing the drops in the percentages of recently married nonparents at the bottom of the table with corresponding changes at the top of the table for ever-married nonparents. Ignoring the unstable results for the nonparents married before October 1972 (based on very small samples), we see that full-time enrollment drops much more among the recently married than it does among the cohort of those who married before October 1979.

Our analyses of full-time versus part-time enrollment status and degree enrollment for men revealed no systematic effects of parenthood in either direction. Thus, the differences in full-time enrollment rates between married fathers and nonfathers that appear in Table 7.2 and the similar differences in degree-credit enrollment in Table 7.3 cannot be attributed to parenthood, but may instead reflect preexisting differences in background characteristics.

The right-hand panel of Table 7.4 presents our results for male students on the measure of hours per week spent in educational activities; Table 7.5 presents results for the same measure including nonstudents. Compared with ever-married nonparents, married fathers who are enrolled in school spend slightly less time attending or preparing for class (see Table 7.4). When nonstudents are included in the calculations (Table 7.5), the differences between married fathers and nonparents widen considerably. The latter measure, of course, reflects changes between student and nonstudent status as well as changes between full-time and part-time status. It shows much larger differences than the first measure, indicating that married fathers differ from nonparents far more in their enrollment behavior than they do in their pattern of educational activities given that they are enrolled. To the extent that parenthood affects men's levels of educational activity, it does so by affecting enrollment. This finding, along with a parallel finding for women, may reflect the fact that enrollment entails fixed costs (tuition, getting to class, etc.) that can only be justified by putting in a reasonable amount of time in educational activities.

Of course, group differences between parents and nonparents on these measures do not necessarily establish that there are parenthood effects. However, the plots for men in Fig. 7.2 show a clear gap between actual and estimated expected hours spent in educational activities that is somewhat larger during pregnancy and the first 12 months after the birth than it is thereafter. Such a pattern suggests that parenthood does have a depressing effect on men's educational activities, at least temporarily.

We now turn to an examination of men's actual and expected educational attainments. Table 7.6 shows actual attainments at each survey year by marital status and timing of parenthood. It is apparent that the attainments of men, like those of women, are related to the timing of family formation; however, the differences are not nearly so dramatic for men. Both married and unmarried fathers lag married and unmarried nonparents in their attainments, and the gap grows wider over time. Unlike women, however, men do not show evidence of marriage effects. For every survey year, ever-married men who have not become parents have virtually the same educational attainment as single nonparents. (In contrast, the attainments of ever-married women who have not become parents lag those of single nonparents by a full half-year by 1979.)

But if the marriage decrement in attainments falls almost entirely on women, the parenthood decrement appears to be shared somewhat more equally. By 1979, the attainments of married mothers lag those of ever-married nonmothers by 1.1 years on average; the comparable figure for married fathers is 1.0 year. (Actually, the difference would be greater were it not for differences in the average age of marriage; a better comparison might be based on the means for marriage cohorts at the bottom of the table, where the parenthood differences for men are somewhat smaller than they are for women.)

For men as for women, timing of parenthood is strongly related to attainment throughout the survey years. Early parents complete less schooling than those whose first child is born later. This result is entirely consistent with results from previous studies.

In interpreting the shortfalls in educational attainment that are associated with parenthood, it is important to know whether the shortfalls are temporary or permanent. To what extent do the reductions in educational activities shown by parents represent postponement of long-term educational plans as opposed to a permanent lowering of educational sights? A final answer to this question must obviously rest on a more extended series of observations than those so far available for the NLS; however, clues can be found in data on educational expectations, shown in Table 7.7. Those data clearly show the importance of preexisting differences. Whereas the data in Table 7.6 show an ever-widening gap between the attainments of parents and nonparents, those in Table 7.7 show strong initial differences in the expected educational attainments of parents and nonparents—differences that we know from our examination of actual attainments are increasingly realized over time. The data also show, however, that parents and nonparents have changed their expectations very differently over the period covered by the surveys. In 1979, both single and married nonparents (of both sexes) expected to complete slightly more schooling on average than they had said they expected to complete shortly after high school graduation. In contrast, married parents mostly lowered their expectations from 1972 to 1979.

Figure 7.3 shows plots of married fathers' expected educational attainment, together with our estimates of what their expectations would have been in the absence of parenthood. It is clear from the figure that parenthood has at least a temporary dampening effect on fathers' educational expectations; at one year before the birth of the child, married men expect to complete just over 14 years of education—about a third of a year less than we estimate they would expect in the absence of parenthood. This gap widens to as much as nine-tenths of a year just before the birth of the child, then disappears fairly rapidly. In fact, two years after the birth of the child, married fathers expect to complete somewhat *more* education than we would expect on the basis of their characteristics. Thus, the effects of parenthood on men's educational expectations appear to be mostly anticipatory rather than a response to the child's actual arrival; the effects also appear to wear off rather quickly, just as they do for women.

## CONCLUSIONS

Our analyses show clear parenthood effects on married women's educational activities, in the form of a substantial drop in enrollment around the time of parenthood. This drop occurs despite the fact that married women's enrollment rates are already lower than we would expect given their background characteristics. Indeed, although our method provides no satisfactory way to compare the effects of marriage with those of parenthood, the evidence suggests that marriage depresses women's educational activities more than parenthood does.

For the most part, it would seem that married mothers who leave school around the time their babies are born do not soon return; their enrollment rates remain depressed for at least two years after the child is born. Although the rates increase during that time, narrowing the gap between parents and nonparents, the proportion enrolled does not begin to return to the levels observed before the pregnancy.

In contrast to the clear-cut effects on enrollment, the evidence suggests only modest effects on the level of educational activity of mothers who remain in school. Few mothers shift from full-time to part-time status or reduce the number of hours spent in attending or preparing for classes.

These results indicate that parenthood affects women's educational activities primarily by affecting the fundamental enrollment decision on whether or not to be in school. Those who choose to remain in school show remarkably little reduction in the level of their activity. Those who leave school show little inclination to hurry back. These contrasting patterns of response to parenthood suggest at least two distinctive patterns of role accommodation. Some women seek to combine the new role of parent with the existing student role, whereas others abandon the student role for that of parent. The data suggest that once women have made this choice, they tend to stick with it. There is little indication that many women who adopt either strategy find much reason to modify it, whether by returning to school part-time if the decision was to leave school or by reducing hours if the decision was to remain in school. Viewed another way, the data seem to suggest that either role choice can be carried off successfully, so that initial decisions tend to persist.

One of the most remarkable aspects of our findings for women is that we observe so little evidence that parenthood slows the educational progress of unwed mothers—at least within this sample of women who had all completed high school at the time of the initial survey. Unwed mothers are consistently more likely to be enrolled in school than married women who became mothers about the same time. Moreover, both their attainments and their expectations are consistently higher. Although it is tempting to explain this difference by arguing that it is marriage, rather than parenthood, that interferes with educational progress, the data do not support that argument. To be sure, there *is* evidence that marriage depresses women's educational progress, but parenthood has unmistakable effects over and above those of marriage. Instead, we believe that the relative absence of parenthood effects among unwed mothers may reflect cultural factors (65 percent of the unmarried mothers in the NLS are black) or self-selection (women who wish to continue their schooling do not get married even if pregnant). It is also possible that when parenthood occurs within marriage, it offers women opportunities for role specialization that are less viable outside marriage, making withdrawal from school less attractive to the unmarried.

All of the above is speculation, of course; what our analyses demonstrate is that parenthood has a much greater effect on the educational activities of married women than of unmarried women.

Our results for men are in many respects similar to those for women, but there are important differences as well. At almost all points of measurement, fathers are much less likely to be enrolled in school than are childless men of the same marital status. For the most part, however, these differences seem to be in place well before parenthood. It is possible that men alter their enrollment behavior in anticipation of parenthood, but it seems more likely that the relationship between enrollment and timing of parenthood proceeds in the other direction; i.e., that men who are enrolled in school are more likely to postpone parenthood. (It is also possible that the relationship between the two is entirely accounted for by some set of background characteristics that influence both.)

In any case, although the enrollment rates of fathers are nearly as different from those of childless men as the rates of mothers are from those of childless women, we find less evidence that the differences for men are a genuine response to parenthood. Moreover, we find little indication that men who are enrolled in school reduce the amount of time they spend on school activities around the time they become parents. We do see a temporary drop in their expectations just before the birth of the child, but this pattern disappears within a few months. In general, the picture that emerges is that, while the educational careers of men who become fathers by their mid-twenties are quite different from those of other men, these differences are mostly due to factors other than parenthood.

## Chapter 8

# MARITAL DISRUPTION

## INTRODUCTION

This chapter assesses how a first birth affects the probability of marital disruption. For ever-married young men and women, we compare the proportion currently disrupted over a period of two years following the birth, by timing of marriage and childbirth. This analysis compares the actual proportion of fathers and mothers whose marriages dissolved with the estimated expected proportions in the absence of parenthood.

Researchers and students of the family have puzzled over the effect of children on marital stability. Some have argued that parenthood holds couples together, either through increasing the joys of family life or through increasing the losses from divorcing. Others see the arrival of children as a turning point for the worse in marital relations, as an event that strains and changes the nature of the marital bond. There is evidence to support both views.

At the aggregate level, the divorce rate and the fertility rate appear to move in tandem. In 1981, the last year for which final statistics exist, the absolute number of divorces increased for the 19th consecutive year to 1.2 million. In 1962, the year before that long upward trend began, 413,000 divorces occurred (National Center for Health Statistics, 1984). Fertility rates peaked in the mid-to-late 1950s, fell steadily through the late 1960s, leveled off for a few years, and then resumed their decline. By the mid-1970s, fertility rates hit their lowest recorded levels (National Center for Health Statistics, 1982). During this period, divorce rates rose steadily.

The average number of children per divorce decree has fallen since 1964 to just under 1 currently, primarily because of reductions in fertility and average family size. Since 1971, the proportion of divorcing spouses with no children has risen, and the proportion with 3 or more children has fallen (National Center for Health Statistics, 1984). Below we discuss the effect of parenthood on marital stability.

## PARENTHOOD EFFECTS ON MARITAL STABILITY

### Children Affect Marital Stability Positively

Early studies found a strong negative relationship between presence or numbers of children and rates of marital dissolution. Early scholars of the family concluded that having children held couples together (Cahen, 1932) because divorce rates were lower for parents than for the childless, and for those with many children, than for those with only a few. But these studies failed to control for any characteristics of the couple or of marriage, even marital duration, that would clearly affect both time at risk of childbearing and time at risk of divorce or separation.

Several more recent analyses that include controls for the characteristics of the individuals and the marriage show that larger family size does not always mean greater marital stability. Cherlin (1977) finds that only the presence of preschool-aged children decreases the probability of divorce for married women. Hannan, Tuma, and Groeneveld (1977), analyzing data from the Income Maintenance Experiment, find no impact of the presence of children under age 6, or children age 6–10, on marital dissolution for black, white, or Hispanic women. Thornton (1977) examines the effect on marital stability of number of children without regard to their age. He reports that marital disruption is commoner among women with no children and those with many than among those with one or two children. This analysis controlled only for the woman's religion, race, and age at marriage, and estimated effects within categories of marital duration.

Several mechanisms could produce the negative relationship sometimes found between presence of children and marital instability. First, Cherlin suggests that preschool-age children inhibit divorce because of the high costs in time, effort, and money of caring for young children. These make divorce more costly for parents with children these ages than for those with no children or only older children.

Second, children of any age may increase the costs of divorce, both because of the noncustodial parent's loss of access to the children and the increased burden on the custodial parent, and because of the decreased financial well-being that typically follows divorce, especially for the woman and children (Hoffman, 1977). Divorcing couples also lose the economies of scale associated with sharing a household. Parents may end their marriages less readily than the childless because they believe that disruption will harm the children (see Thornton, 1977, for a review of this literature). According to reasoning presented in Becker et al. (1977), children constitute the prime example of marital-specific capital, a possession that has substantially more value within the marriage than outside it, at least in modern American society. As such, children born to a couple increase the stability of the marriage because the drop in their value to the parents with dissolution raises the attractiveness of the current marriage and the costs of divorce.

## Children Affect Marital Stability Negatively

However, several theoretical perspectives suggest that children may *increase* marital instability. The birth of the first child may be a crisis for parents (Dyer, 1963), changing the objective quality of their life (Waldron and Routh, 1981), and their satisfaction with it (Campbell et al., 1976). Some evidence suggests that marital satisfaction declines with the arrival of children; both men and women with young children show substantially *lower* satisfaction with various aspects of their lives than do those either with no children of with grown children (Campbell, Converse, and Rodgers, 1976). One longitudinal analysis of new mothers during the pregnancy and six weeks after the birth showed that marital adjustment scores dropped significantly from the first to the second measure (Waldron and Routh, 1981). Harriman (1983) found that new mothers perceived more changes in their life overall and more changes in their personal life following a birth than did their husbands. Most of these changes reduced the quality of life for new parents. Parenthood certainly requires a number of adjustments on the part of of the mother and father (see Udry, 1971; Rossi, 1968), in work and student roles for men and women, and in their aspirations and expectations (Haggstrom et al., 1981).

Mott and Moore (1979), examining disruption among a national sample of ever-married young women from the National Longitudinal Survey of Young Women, find a *positive* zero-order relationship between having one or more children and marital disruption; that is, women experiencing a marriage break-up were more likely to have one or more children of their own than were women with intact marriages. This finding may be due entirely to the relationship between presence of young children and other characteristics of the woman. However, a multivariate analysis of disruption carried out by Mott and Moore indicates that presence of a very young child has no effect for whites, and an insignificant positive effect for blacks.

Finally, Hill (1984) suggests that children decrease marital stability indirectly because their presence interferes with the parents' leisure time spent together, as she shows, and shared leisure activities create a bond that strengthens marriage. Her research, using the Michigan 1975–76 to 1981 time-use survey, supports this reasoning.

A third alternative suggests that the same factors may affect both marital stability and fertility. Couples with children could have more stable marriages only because the same characteristics or preferences that make them unlikely to divorce make them likely to have children. These could include religious beliefs about divorce and fertility, perhaps mediated through beliefs about birth control, or tastes for pleasures derived from family life.

Only one analysis to date has attempted to assess the simultaneous relationships between fertility and marital dissolution. Koo and Janowitz (1983) estimated a simultaneous logit model of the probability of separation and of having a birth in a brief period for married couples. They found that number of children and age of the youngest child at the beginning of the marital interval being studied and fertility during the interval did not influence the chances of separation in any interpretable way, nor did separations affect childbearing throughout marriage.

## Changes Over Time

Several researchers suggest that the effects of parenthood on marital stability have changed over time. Several decades ago, childlessness was primarily involuntary, and the disappointment it caused may have increased marital discord and dissolution (Carlson and Stinson, 1982; Poston and Gotard, 1977). But among more recent marriage cohorts, increasing proportions of the nonparents have deliberately chosen this status. In fact, some estimates put the eventual proportion of childless women in recent cohorts at up to 25 percent (Bloom, 1982). Carlson and Stinson (1982) argue that because of this trend toward childlessness and toward later marriage, teenage brides represent an increasingly select group, among whom childlessness is still strongly linked to divorce. But among those who marry at age 20 or older, childlessness seems to have some *positive* effect on marital stability. The authors argue that the social meaning of childlessness, and its causes, are sharply different for early and later marriages.

To summarize our knowledge to this point about the effect of children on the stability of marriages, a number of researchers have found that presence of children enhances stability, but some show no effect or even negative effects, and the strength of the effects may depend on the age of the children. Theoretical support exists for expecting either positive or negative effects, although the reasoning for positive effects is more complete and well developed. A number of mechanisms could produce a positive effect of parenthood on marital stability, but theoretical work to date focuses on only one potential mechanism for negative effects.

We test these competing perspectives by a longitudinal examination of marital dissolution for young adults following the birth of the first child. Marital dissolution in this analysis includes divorce and separation, since both signal a breakdown of the marital relationship. Although separation need not be permanent, it usually leads to divorce; often, a considerable period may elapse between the separation and the legal death of the union (Glick and Norton, 1977).

Our measure of disruption is an indicator variable for those NLS participants who reported being divorced, widowed, or separated as of the first week of October in the survey year. Since the NLS did not obtain a complete marital history, we cannot identify those who separated and reconciled within a year, or those who divorced and remarried between surveys. This poses little problem, however; separations and divorces distribute themselves throughout the year, so that the average elapsed time between the event and the survey will be about six months for surveys one year apart. Since median time to remarriage is about three years (Glick and Norton, 1977), we will miss few speedy remarriers. Moreover, remarriage occurs most rapidly for those who are young and childless at divorce (Glick and Norton, 1977), so our estimates will understate the proportion divorced most for this group. Thus, our estimates of the effects of parenthood on divorce will be biased downward, if at all.

## PARENTHOOD EFFECTS ON MARITAL INSTABILITY

Our analysis of marital disruption and parenthood relies on three types of comparisons, as do other analyses in this report. First, we compare changes in proportion currently divorced or separated in various marriage and parenthood cohorts with changes for those who did not have a child. Next, we compare the proportions divorced in a single year among young women and young men by timing of marriage and parenthood. Next, we compare actual and expected proportion divorced for the year preceding and two years following entry into parenthood. Since we restrict our analysis to those married before the first birth, we cannot examine changes in proportion divorced prior to and after entry into parenthood for those unmarried at the first birth.

Table 8.1 gives the percentages of ever-married females (left panel) and males (right panel) currently separated or divorced, by timing of marriage and parenthood. The lower panels of this table present the same percentages for

## Table 8.1

## PERCENTAGE OF THOSE EVER MARRIED WHO ARE CURRENTLY DIVORCED OR SEPARATED BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | Males | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample Size | | | | | | Sample Size | |
| Parenthood Status | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | |
| Single | | | | | 0 | 0 | | | | | 0 | 0 |
| Ever Married | 4.9 | 8.4 | 14.4 | 14.1 | 1443 | 451 | 4.0 | 5.4 | 9.1 | 11.0 | 1044 | 150 |
| Married Parents | 2.8 | 5.6 | 8.7 | 11.8 | 2968 | 1959 | 1.6 | 2.6 | 6.1 | 9.2 | 1839 | 870 |
| After 9/76 | 3.5 | 7.1 | 6.0 | 6.2 | 857 | 314 | 1.4 | 2.4 | 3.0 | 4.1 | 662 | 140 |
| 10/74 - 9/76 | 2.5 | 2.9 | 6.0 | 12.6 | 861 | 472 | 1.6 | 0.4 | 4.1 | 11.7 | 555 | 191 |
| 10/73 - 9/74 | 1.2 | 4.5 | 11.1 | 15.4 | 575 | 511 | 0.0 | 2.6 | 9.7 | 15.3 | 286 | 223 |
| 10/72 - 9/73 | 3.8 | 8.0 | 16.0 | 17.4 | 499 | 498 | 3.4 | 5.5 | 18.7 | 20.9 | 234 | 234 |
| Before 10/72 | 4.7 | 12.6 | 16.5 | 26.8 | 127 | 127 | 1.9 | 9.6 | 11.5 | 15.4 | 52 | 52 |
| Adoptive Parents | 4.0 | 11.1 | 15.8 | 5.1 | 49 | 25 | 0.0 | 6.1 | 10.3 | 5.6 | 89 | 31 |
| Unwed Parents | 4.9 | 11.0 | 15.0 | 19.8 | 187 | 61 | 3.7 | 3.0 | 7.0 | 14.1 | 101 | 27 |
| After 9/76 | | | | 25.0 | 6 | 0 | | | | 9.7 | 7 | 0 |
| 10/74 - 9/76 | | | 6.7 | 10.7 | 17 | 0 | | | 13.3 | 14.3 | 14 | 0 |
| 10/73 - 9/74 | | 0.0 | 19.4 | 22.8 | 25 | 0 | | 0.0 | 5.3 | 8.6 | 15 | 0 |
| 10/72 - 9/73 | 0.0 | 6.0 | 7.9 | 18.3 | 64 | 10 | 0.0 | 3.2 | 4.3 | 22.2 | 34 | 7 |
| Before 10/72 | 5.9 | 16.4 | 22.5 | 23.7 | 73 | 51 | 5.0 | 3.6 | 8.8 | 11.1 | 29 | 20 |
| Timing of first marriage: | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | |
| Nonparents | | | | 4.9 | 279 | 0 | | | | 4.5 | 328 | 0 |
| Married Parents | | | | 5.4 | 78 | 0 | | | | 4.2 | 95 | 0 |
| 10/74 - 9/76 | | | | | | | | | | | | |
| Nonparents | | | 4.8 | 13.8 | 428 | 0 | | | 3.4 | 15.0 | 384 | 0 |
| Married Parents | | | 3.1 | 9.1 | 405 | 0 | | | 1.5 | 5.6 | 437 | 0 |
| 10/72 - 9/74 | | | | | | | | | | | | |
| Nonparents | 1.7 | 5.3 | 22.0 | 25.1 | 584 | 303 | 3.3 | 5.2 | 20.7 | 25.1 | 303 | 123 |
| Married Parents | 1.9 | 3.8 | 9.1 | 11.5 | 1526 | 1007 | 1.3 | 1.7 | 7.5 | 12.1 | 1043 | 611 |
| Before 10/72 | | | | | | | | | | | | |
| Nonparents | 11.5 | 22.3 | 34.5 | 35.1 | 148 | 148 | 7.4 | 7.4 | 18.5 | 29.6 | 27 | 27 |
| Married Parents | 3.8 | 8.2 | 12.6 | 16.7 | 952 | 952 | 2.3 | 6.6 | 14.7 | 15.8 | 259 | 259 |

marriage cohorts, by parenthood status in 1979. This table shows separation and divorce rates for married mothers declining with recency of the first birth from 27 percent for women who had a first birth before October 1972 to 6 percent for those who became parents after September 1976. Results for men show this same general pattern. Much of this decline in dissolution with recency of the first birth is attributable to differences in marital duration; the more recently a couple married, the less time they have been at risk of dissolution. Some of the difference may also be attributable to age at marriage. When duration of marriage is controlled, as in the lower panel, age at marriage has a negative effect on marital instability, at least within the range of typical marriage ages (Glick and Norton, 1977).

Parenthood effects on dissolution for those unmarried at first birth make less sense, because marital duration and timing of childbirth are not linked. In fact, these rates do not exhibit a regular relationship with timing of first birth; those who bore a child out of wedlock between 1976 and 1979 show the highest rates of marital instability for what must have been rather brief marriages. Both males and females show an irregular relationship between timing of the birth and marital instability. Premarital pregnancy and birth have both been found to increase chances of disruption in other research (Furstenberg, 1976), and may account for the results we report here.

We also look for effects of parenthood by comparing *increases* in the proportion separated or divorced from the year preceding to the year following the first birth for parents and childless married persons of the same sex. For example, the proportion of ever-married fathers currently separated or divorced rose from 3 to 4 percent from 1976 to 1979 for those who had a first child during that period, compared with a rise from 9 to 11 percent for childless men over the same years.

Married women show some inhibiting effects of parenthood on dissolution. For example, we observe a rise in proportion disrupted for those with a first birth between 1974 and 1979 of 3 percentage points, compared with a rise of 6 points for childless married women during the same period. But from 1976 to 1979, the proportion currently separated or divorced was unchanged for the childless (14.4 to 14.1 percent), and for married women who became mothers during these years (6.0 to 6.2 percent). The decline among the childless results either from remarriages exceeding disruptions during these years, or from changes in the sample due to attrition between the 1976 and 1979 surveys. Taken by themselves, these results do not suggest that parenthood has much effect on marital instability. However, the comparisons made so far fail to take into account the possible confounding effects of timing of marriage.

The most informative section in Table 8.1 deals with marital instability for groups of males and females who married about the same time, some of whom became parents. These comparisons show lower dissolution rates for parents in all marriage cohorts for virtually every year but the most recently married for 1979. We observe the same pattern for both men and women. In most cases, parents show disruption rates about half of those for persons of the same sex who married at about the same time but remained childless. These results suggest substantial parenthood effects on marital disruption.

Although the result from different comparisons diverge, they are not difficult to reconcile. We suggest that to obtain a clear picture of the relationship between parenthood and disruption, it is necessary to control for the confounding effects of age at marriage and marital duration. Comparisons within marriage cohorts do this.

Figure 8.1 shows actual percentages currently disrupted for ever-married male and female parents in the two years following the first birth, along with the estimated expected disruption rates in the absence of parenthood. Parents of both sexes have very low proportions currently divorced or separated at all points from 12 months prior to through 24 months following the first birth. Those who are in intact marriages are more likely to become parents during the next several years than those whose marriages are disrupted, although a rather high proportion of all twice-married women bear a child between marriages (Rindfuss and Bumpass, 1977).

Our data show virtually none of the male and only 1 to 2 percent of the female parents in the disrupted category at the time of first birth. The proportion increases following the birth, but the increase is small and gradual. By two years after becoming parents, only about 4 percent of the men are divorced or separated. The proportion whose marriages are disrupted rises somewhat more for women, from about 3 percent just before the birth to about 8 percent by the time that child reaches age two. Some of these sex differences may

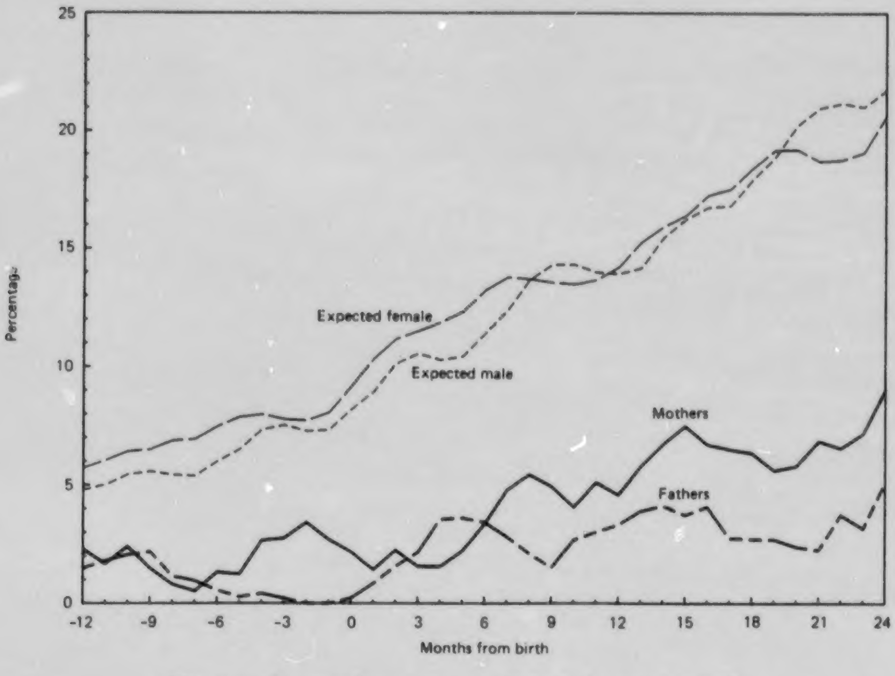

Fig. 8.1—Proportion currently divorced or separated

result from differences in age at marriage; women tend to marry a year or two younger than do men, on average (Thornton and Rogers, 1983), and to marry men a year or two older than themselves. Because we examine marriages for a single age group, the married men are less typical of their age peers than are the married women.

Comparing the observed divorce rates in Fig. 8.1 with our estimates of expected proportion divorced or separated in the absence of the first birth, we see that the divorce rates for both male and female parents rise much more slowly than would be expected in the absence of the first birth. Estimated expected marital dissolution rises steadily for both sexes from about 5 percent one year before the birth through the two years after. These estimates agree closely for men and women, with male disruption slightly higher for most of the three-year period. By the time the child reaches his second birthday, our results suggest that more than 20 percent of the mothers and fathers would have divorced or separated if they had not become parents, compared with actual disruption rates of 5 to 8 percent.

These results are quite dramatic and are consistent with the opinion that children increase marital stability. As our results pertain directly to the period thought to be most difficult in the transition to parenthood—the birth of the first child—we find no support for the reasoning that the difficulty of this transition increases the chances of marital rupture in the short run.

Findings reported by Hofferth (1981) match ours quite closely. She concludes that the birth of a first child greatly reduces the likelihood of marital disruption relative to that faced by couples with no first birth. This effect is substantial and long-lasting. Hofferth's analysis differs from ours in that it compares childless couples and parents (by parity), rather than comparing parents with estimates of their divorce probabilities if the first birth had not occurred. We remind the reader that our estimated proportion divorced or separated in the absence of parenthood reflects the outcome that we would observe if the actual characteristics of the mothers and fathers were combined with the effects of these characteristics for married nonparents.

## CONCLUSIONS

Our analyses point to a consistent, powerful, and positive relationship between having children and marital stability, at least in the short run. We find this stabilizing effect of children both for males and females, in a recent sample of high school graduates who married and bore a first child before age 25.

These results do not tell us *why* parents are less likely to divorce than those without children. Perhaps characteristics of the individuals—such as the strong taste for family life mentioned earlier, or religious beliefs—both increase the chances of parenthood and decrease the chances of separation or divorce, without any direct impact of having children on remaining married. Perhaps having children does tend to hold marriages together, either by making them more satisfying, or by increasing the cost of dissolving them. Our model of marital instability for married nonparents includes many of their characteristics, as well as marital duration, but it does not control for tastes for family life or similar personality or attitudinal variables rarely measured in social surveys.

These findings of a strong connection between parenthood and marital stability are striking, and perhaps will be surprising to some. Accordingly, it is important to ask how likely it is that they result from some peculiarity of the NLS sample. Would we be likely to find the same patterns in a more general population? We think so, for the following reasons. Although our NLS sample is by no means a general one, it does provide data on the prime childbearing years for a recent national cohort of high school graduates. The NLS includes only high school graduates, who show lower divorce rates than those with less education (Glick and Norton, 1977). Our analysis includes all those who married by about age 25 (the age of the NLS participants at the 1979 follow-up survey), substantially past the median age at marriage for white females in the birth cohort of the NLS participants (22 to 23), and somewhat later than the median age at first marriage for white males (about 24). Black males and females marry a year or two later than whites of the same cohort (Thornton and Rogers, 1983). All those males and females who married by about age 25 and who had remained childless to that point provided the comparison group for our analysis of the effects of parenthood. Divorce and separation following the first birth appear in our sample through 1979 for all those who married and had a child prior to that date. The only groups excluded from our analyses are those who fail to complete high school, those who have a first child out of wedlock, and those who marry and bear children late. Since the first two of these events occur much more frequently to blacks of both sexes than to whites, we expect that our samples and therefore our results are less applicable to them.

Our results do apply to the majority of the population of young adults of childbearing age, and for this group they are quite dramatic. Future research might explore the causal mechanisms through which children reduce marital disruption, and the extent to which this effect depends on race and whether the children were born prior to or during that marriage.

# Chapter 9

# SOCIAL AND POLITICAL PARTICIPATION

## INTRODUCTION

Our analysis has so far focused mainly on how parenthood affects young people's educational pursuits and labor force activities. The time spent on these activities is likely to have especially important consequences for parents' economic well-being, in both the short and the long run. However, to arrive at a more complete understanding of how parenthood alters people's lives, we must examine a wider range of activities, including (ideally) time spent in recreation and leisure activities, social interaction, and community and political participation. For all these types of activities, there is good reason to expect that parenthood will induce important shifts, either in the amount of time devoted to the activity or the way in which it is pursued. Moreover, it seems likely that a frequent way of adjusting to the additional demands of parenthood is to reduce the amount of time spent in "discretionary" activities.

In this chapter, we examine how parenthood affects two types of activities covered in the NLS survey: participation in voluntary organizations and involvement in political activities.

There is good reason to believe that entry into parenthood changes both the extent and type of participation in voluntary organizations. The additional time demands of parenthood should tend to reduce participation. On the other hand, parenthood creates potential ties between parents and numerous voluntary organizations, such as PTAs, youth organizations, and recreation clubs. Thus, we would expect to observe both quantitative and qualitative differences in the patterns of participation between parents and nonparents, and would also expect these differences to vary with the age of the children. The findings in the literature are generally consistent with these expectations, although the evidence is mostly indirect. Most notably, several studies have found that membership in voluntary associations varies over the family life cycle. Knoke and Thompson (1977) found that the number of voluntary memberships declines with marriage, remains depressed during the years before children enter school, and rises thereafter until the approach of the retirement years. Angrist (1967), Harry (1970), and Searls (1966) all found that the extent of women's participation in community activities was greater if their children were of school age than if they were of preschool age. More recently, Tomeh and Chilson (1982) found that age of children is related to women's participation in voluntary groups, but not men's. Earlier, Scott (1957) found a complex relationship between number of children and number of memberships: Parents with only one child, or with three or more children, participated in fewer organizations than those with no children or with two children. This complex pattern may reflect the (unobserved) effects of the age of the youngest child.

The literature also provides evidence of sex differences in both the extent and type of voluntary memberships (Babchuk and Booth, 1969; Booth, 1972; McPherson and Smith-Lovin, 1982; Scott, 1957). Some of these differences may be related to the increased sex role specialization that often accompanies parenthood. For example, women's generally lower rates of voluntary participation in "instrumental" groups oriented toward the accomplishment of external goals (Babchuk and Booth, 1969) may reflect the lower rates of labor force participation and/or the greater responsibilities for child care that accompany parenthood for women.

Unfortunately, previous studies suffer from serious limitations. First, most studies have been based on cross-sectional data that do not allow one to separate life-cycle effects from cohort effects. Second, even the few longitudinal studies (e.g., Babchuk and Booth, 1969; McPherson and Lockwood, 1980) suffer from the fact that certain key variables are not measured or controlled, making interpretation difficult. The NLS provides far better data than have heretofore been available for analyzing the effects of parenthood on participation in voluntary organizations. This is so even though, as will be seen below, the NLS measures of participation are not as detailed as those in some other studies.

Many of these same points can be made regarding previous studies of political participation, although in this case considerably more attention has been paid to the effects of parenthood. In their classic study of the American voter, Campbell et al. (1960) discovered that electoral turnout rates were depressed among the mothers of young children. More recently, Pomper (1975) found that women with preschool children were less likely than other women to vote in the 1968 presidential election. Census data from the 1978 elections (U.S. Bureau of the Census, 1979) indicate that female household heads whose children were all under six years old were much less likely to vote (18 percent) than those with older children (55 percent) or no children (45 percent). Thus, there is some evidence that parenthood may affect the voting behavior of women. Unfortunately, causal interpretation of these findings is clouded by the fact that mothers of young children are less likely to be in the paid labor force, and several studies suggest that women who are employed outside the home are more active politically (Andersen, 1975; Verba and Nie, 1972; Welch 1977). Sorting out the relationships among employment, parenthood, and political participation also requires taking into account the effects of background variables, such as education, that are important determinants of political participation in and of themselves, and that may also condition the effects of other variables. For example, McGlen (1980) found that parenthood seemed to produce a greater decline in the political activity of college-educated women than of women with high school education.

In general, then, previous work leads us to expect that we will find parenthood effects on both voluntary associations and political participation. Having preschool age children should depress both types of extrafamilial activity for women. For men, previous work suggests that parenthood will have a similar effect on voluntary associations, and there is some evidence that it may reduce political activity as well.[1] Finally, previous work suggests that the reduction in outside activity associated with parenthood is specific to the preschool years.

## MEASURES OF SOCIAL AND POLITICAL PARTICIPATION

Respondents to the 1974, 1976, and 1979 surveys were asked about their membership and participation in each of 13 types of groups, including churches, youth organizations, political clubs, sports teams, and organized volunteer work. For each category, respondents indicated whether they were a member and whether they were an active participant during a two-week reference period in October of the survey year. From responses to these items, we derived two summary variables: (1) the number of memberships reported; and (2) a count of the types of organizations in which the respondent claimed active participation. Analysis of the pattern of correlations among items persuaded us that although there was a weak general factor reflecting overall activity, responses to subsets of items did not cluster in a meaningful way. Accordingly, we analyzed only the two count variables that indexed overall social participation, and did not examine more specific measures, whose reliability was questionable.

Political participation was measured in the 1974, 1976, and 1979 follow-ups. Respondents were asked whether they were registered to vote, and whether they had voted in a local, state, or national election before October of the survey year. They were also asked a series of questions about how frequently they had engaged in various other political activities, ranging from discussion of public problems with friends and family to running for public office. After examining the results of factor analyses for these items, we elected to create a single composite measure summarizing responses to five of the eight questions. This measure reflected the average frequency with which the respondent reported (1) talking about public problems with elected officials or people in politics; (2) talking to people to try to influence their vote; (3) making financial contributions to an election campaign; (4) attending political meetings or rallies; and (5) working in an election campaign. Because the frequencies with which people engaged in these activities were substantially correlated, the composite score demonstrated adequate reliability (Cronbach's alpha = .77).

## RESULTS

Our analysis of the consequences of parenthood for participation in voluntary organizations begins with an examination of the mean number of memberships reported in each of three survey years for which data are available (1974, 1976, and 1979) by marriage and parenthood status. As in the analyses reported previously, our interest is in determining whether parenthood alters the development of outcomes. However, because the measures we are considering were not taken in 1972 or 1973, we must focus on the relative magnitude for different groups of changes between 1974 and 1976 and between 1976 and 1979.

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[1] Census data for the 1978 election (U.S. Bureau of the Census, 1979) indicate that male household heads who had young children (all under six years of age) were less likely to vote (36 percent) than male household heads with older children (55 percent) or no children (58 percent).

Table 9.1 shows clear evidence of both marriage and parenthood effects. Initially, marriage depresses organizational memberships, but this effect appears to wear off over time. The effects of parenthood appear to be related to the timing of measurement. For example, recent mothers, whether unwed or married, belong to fewer organizations than do their single or ever-married counterparts. However, this effect not only disappears over time, among married mothers it actually reverses direction. Note that in October 1979, married mothers whose first child was born before October 1973 (and whose child therefore attained school age in 1979) report more organizational memberships than do married women who were nonparents—indeed, more even than single nonparents. This finding, together with a parallel finding for married fathers, indicates that the effects of having children on parents' involvement in the outside community critically depend on whether the children have attained school age. Married parents whose oldest child is a preschooler belong to fewer groups than nonparents do. After the oldest child has attained school age, however, parents report belonging to more groups.

There are at least two plausible explanations for this reversal in the parenthood effect. The first is that having preschoolers restricts parents' freedom, but that this restriction ends when the children reach school age. At that point, parents sharply increase their involvement in extrafamilial activities. A second explanation is that once a child has attained school age, parents are exposed to numerous opportunities (and pressures) to become involved in child-related groups, such as PTAs, sports clubs, or church activities that are oriented toward children and families. There is nothing incompatible in these two explanations. Either or both could be true. Although our data will not support a detailed comparison of the relative merits of the two, our results do suggest that the first (restricted opportunity) explanation is not by itself sufficient. The reason is that if restricted opportunity were the only operative principle, we would expect to find a much stronger rebound in organizational memberships among women than among men (because women's greater child-care responsibilities restrict their mobility more during the preschool years). This is not the case, however. If anything, the rebound is stronger for married fathers than married mothers, suggesting that some or all of it reflects expanded opportunities or pressures to participate that derive specifically from the new role of being the parent of a school-age child.

Earlier, we noted that Table 9.1 also provides evidence of a negative effect of marriage on voluntary group memberships. This can be seen in the decline, relative to other groups, in the number of memberships reported by recently married nonparents of both sexes in 1976 (compared with 1974) and 1979 (compared with 1976). Judging from the rapid gains during the same years shown by nonparents who had married earlier, this marriage effect tends to dissipate over time.

Plausible explanations are not hard to find. Shortly after marriage, individuals may tend to give up activities and affiliations that are more compatible with a single than with a married role, that cannot be easily shared with one's partner, or that take too much time away from married life. Over time, these activities and affiliations are replaced by new ones that the individual and/or

## Table 9.1

## NUMBER OF ORGANIZATIONAL MEMBERSHIPS BY MARITAL AND PARENTHOOD STATUS

|  | Females |  |  |  |  | Males |  |  |  |  |
|---|---|---|---|---|---|---|---|---|---|---|
|  |  |  |  | Sample Size |  |  |  |  | Sample Size |  |
| Parenthood Status | 1974 | 1976 | 1979 | Mean | Min. | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents |  |  |  |  |  |  |  |  |  |  |
| Single | 1.8 | 2.0 | 2.0 | 2229 | 2211 | 1.8 | 2.0 | 2.1 | 3060 | 3026 |
| Ever Married | 1.6 | 1.6 | 1.8 | 2435 | 2284 | 1.9 | 2.1 | 2.2 | 2107 | 2015 |
| Married Parents | 1.2 | 1.3 | 1.7 | 3245 | 3114 | 1.6 | 1.8 | 2.0 | 2244 | 2186 |
| After 9/76 | 1.4 | 1.5 | 1.5 | 1271 | 1262 | 1.8 | 1.9 | 2.0 | 1102 | 1074 |
| 10/74 - 9/76 | 1.2 | 1.2 | 1.5 | 939 | 900 | 1.5 | 1.6 | 1.8 | 653 | 623 |
| 10/73 - 9/74 | 1.0 | 1.3 | 1.9 | 494 | 468 | 1.5 | 1.5 | 2.0 | 246 | 238 |
| 10/72 - 9/73 | 1.0 | 1.3 | 2.1 | 400 | 349 | 1.4 | 1.7 | 2.0 | 172 | 152 |
| Before 10/72 | 0.9 | 1.6 | 2.3 | 110 | 108 | 1.6 | 2.0 | 2.0 | 44 | 38 |
| Adoptive Parents | 1.6 | 2.0 | 2.1 | 70 | 69 | 1.7 | 1.9 | 2.0 | 164 | 158 |
| Unwed Parents | 1.3 | 1.6 | 1.8 | 632 | 575 | 2.0 | 2.1 | 2.2 | 361 | 340 |
| After 9/76 | 1.5 | 1.7 | 1.6 | 103 | 101 | 1.6 | 2.2 | 1.9 | 89 | 85 |
| 10/74 - 9/76 | 1.4 | 1.3 | 1.8 | 140 | 125 | 2.2 | 1.9 | 2.1 | 107 | 97 |
| 10/73 - 9/74 | 1.2 | 1.4 | 1.8 | 107 | 89 | 2.2 | 1.9 | 2.0 | 63 | 51 |
| 10/72 - 9/73 | 1.3 | 1.6 | 2.1 | 158 | 129 | 2.2 | 1.9 | 2.7 | 61 | 53 |
| Before 10/72 | 1.2 | 1.9 | 1.8 | 122 | 120 | 2.2 | 2.6 | 2.5 | 39 | 32 |
| Timing of first marriage: |  |  |  |  |  |  |  |  |  |  |
| After 9/76 |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 1.9 | 1.9 | 1.8 | 982 | 949 | 2.1 | 2.2 | 2.2 | 1142 | 1137 |
| Married Parents | 1.6 | 1.7 | 1.5 | 269 | 262 | 1.7 | 2.0 | 2.0 | 331 | 322 |
| 10/74 - 9/76 |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 1.6 | 1.6 | 1.8 | 741 | 685 | 1.9 | 1.9 | 2.2 | 638 | 574 |
| Married Parents | 1.5 | 1.4 | 1.6 | 722 | 710 | 1.9 | 1.8 | 2.0 | 732 | 722 |
| 10/72 - 9/74 |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 1.2 | 1.4 | 1.6 | 581 | 533 | 1.4 | 1.9 | 2.2 | 304 | 274 |
| Married Parents | 1.1 | 1.2 | 1.6 | 1456 | 1401 | 1.5 | 1.7 | 2.0 | 978 | 929 |
| Before 10/72 |  |  |  |  |  |  |  |  |  |  |
| Nonparents | 1.1 | 1.4 | 1.6 | 129 | 115 | 1.5 | 1.7 | 2.4 | 21 | 20 |
| Married Parents | 1.1 | 1.4 | 1.9 | 790 | 733 | 1.4 | 1.7 | 1.9 | 198 | 191 |

couple find more suitable or convenient. It seems likely that the process of acquiring new affiliations after marriage would take longer than giving up old ones; if so, that would account for the precipitous decline followed by a more gradual rebound. Of course, it is also possible that both changes reflect quantitative rather than qualitative shifts; i.e., that young marrieds go through a period of adjustment characterized by partial withdrawal from outside commitments. During this period, they do less of what they had done as singles and will do again as older marrieds. Obviously, distinguishing between quantitative and qualitative explanations requires analyzing more detailed measures of the content of group memberships than we analyze here.

Table 9.2 presents data analogous to those in Table 9.1, except that the measure reflects the number of groups that the respondent actively participated in during a specified two-week period. Not surprisingly, the data show the same pattern found for number of memberships. Both marriage and parenthood effects are, if anything, somewhat stronger for this measure, however. This is consistent with the notion that people's active participation in a group is likely to respond more quickly to changes in their life circumstances than does formal membership.

Figures 9.1 and 9.2 show how memberships and the amount of active participation change during the period beginning one year before the birth of a first child and ending two years after. For both men and women, there is a sharp drop in the number of memberships during the months preceding the baby's birth, with the nadir reached well before the baby is born. The rebound is fairly rapid, although the number of memberships does not reach a stable asymptote above the level reached by married nonparents until sometime after the period covered on the plot. As we saw in Table 9.1, a considerably greater length of time seems to be required before married parents' memberships begin to exceed those of married nonparents.

Figure 9.2 displays essentially the same pattern for the number of active memberships. For this measure, the figure suggests that the decline in active participation may be somewhat greater for women than for men.

It is interesting to note that both figures indicate that the decline in activities begins well before the baby is born. Moreover, this is true for both sexes, not just for women. This pattern differs markedly from what one would expect if the decline in activities were induced primarily by the logistic difficulties of having an infant. It also differs from what one would expect if the decline were a by-product of the prospective mother's departure from the labor force. (In that case, the results for men and women would be quite different, and they are not.) Thus, although the NLS data replicate earlier findings of a decline in voluntary associations with the onset of parenthood, they do not support the notion that this decline results from the isolation associated with having an infant, nor the notion that it results from young mothers' withdrawal from the labor force. Instead, the data indicate that couples reduce their participation in such activities well before the baby is born, possibly as a result of marriage.

Indeed, regression results from our analyses for ever-married nonparents suggest that marriage itself may lead to a reduction in organizational activity, even in the absence of parenthood (see App. B). As with the parenthood effects described above, this seems to be true for both men and women. Taken together, our findings suggest that as young people form new family units, they

## Table 9.2

## NUMBER OF ACTIVE ORGANIZATIONAL MEMBERSHIPS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | Males | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Size | | | | | Sample Size | |
| Parenthood Status | 1974 | 1976 | 1979 | Mean | Min. | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | |
| Single | 1.2 | 1.3 | 1.3 | 2229 | 2211 | 1.2 | 1.2 | 1.2 | 3060 | 3026 |
| Ever Married | 1.1 | 1.0 | 1.1 | 2435 | 2284 | 1.3 | 1.3 | 1.3 | 2107 | 2015 |
| Married Parents | 0.8 | 0.8 | 1.0 | 3245 | 3114 | 1.1 | 1.1 | 1.2 | 2244 | 2186 |
| After 9/76 | 0.9 | 0.9 | 0.9 | 1271 | 1262 | 1.2 | 1.2 | 1.3 | 1102 | 1074 |
| 10/74 - 9/76 | 0.7 | 0.7 | 1.0 | 939 | 900 | 0.9 | 1.0 | 1.1 | 653 | 623 |
| 10/73 - 9/74 | 0.6 | 0.8 | 1.2 | 494 | 468 | 0.9 | 0.9 | 1.2 | 246 | 238 |
| 10/72 - 9/73 | 0.6 | 0.7 | 1.3 | 400 | 349 | 0.9 | 1.0 | 1.1 | 172 | 152 |
| Before 10/72 | 0.6 | 0.9 | 1.3 | 110 | 108 | 0.9 | 1.0 | 1.1 | 44 | 38 |
| Adoptive Parents | 1.1 | 1.3 | 1.4 | 70 | 69 | 1.0 | 1.1 | 1.1 | 164 | 158 |
| Unwed Parents | 0.8 | 0.9 | 1.0 | 632 | 575 | 1.2 | 1.2 | 1.3 | 361 | 340 |
| After 9/76 | 1.0 | 1.0 | 0.9 | 103 | 101 | 1.0 | 1.2 | 0.9 | 89 | 85 |
| 10/74 - 9/76 | 1.0 | 0.7 | 1.0 | 140 | 125 | 1.2 | 1.3 | 1.4 | 107 | 97 |
| 10/73 - 9/74 | 0.7 | 1.0 | 1.0 | 107 | 89 | 1.2 | 1.1 | 1.3 | 63 | 51 |
| 10/72 - 9/73 | 0.8 | 0.9 | 1.1 | 158 | 129 | 1.4 | 1.1 | 1.5 | 61 | 53 |
| Before 10/72 | 0.6 | 1.1 | 1.0 | 122 | 120 | 1.5 | 1.3 | 1.6 | 39 | 32 |
| Timing of first marriage: | | | | | | | | | | |
| After 9/76 | | | | | | | | | | |
| Nonparents | 1.3 | 1.2 | 1.1 | 982 | 949 | 1.4 | 1.5 | 1.3 | 1142 | 1137 |
| Married Parents | 1.0 | 1.0 | 0.8 | 269 | 262 | 1.2 | 1.3 | 1.2 | 331 | 322 |
| 10/74 - 9/76 | | | | | | | | | | |
| Nonparents | 1.1 | 1.0 | 1.1 | 741 | 685 | 1.3 | 1.2 | 1.3 | 638 | 574 |
| Married Parents | 1.0 | 0.9 | 1.0 | 722 | 710 | 1.3 | 1.1 | 1.2 | 732 | 722 |
| 10/72 - 9/74 | | | | | | | | | | |
| Nonparents | 0.7 | 0.9 | 1.0 | 581 | 533 | 0.9 | 1.1 | 1.3 | 304 | 274 |
| Married Parents | 0.7 | 0.7 | 1.0 | 1456 | 1401 | 0.9 | 1.0 | 1.2 | 978 | 929 |
| Before 10/72 | | | | | | | | | | |
| Nonparents | 0.8 | 0.9 | 0.9 | 129 | 115 | 0.8 | 1.1 | 1.8 | 21 | 20 |
| Married Parents | 0.7 | 0.8 | 1.1 | 790 | 733 | 0.9 | 1.0 | 1.2 | 198 | 191 |

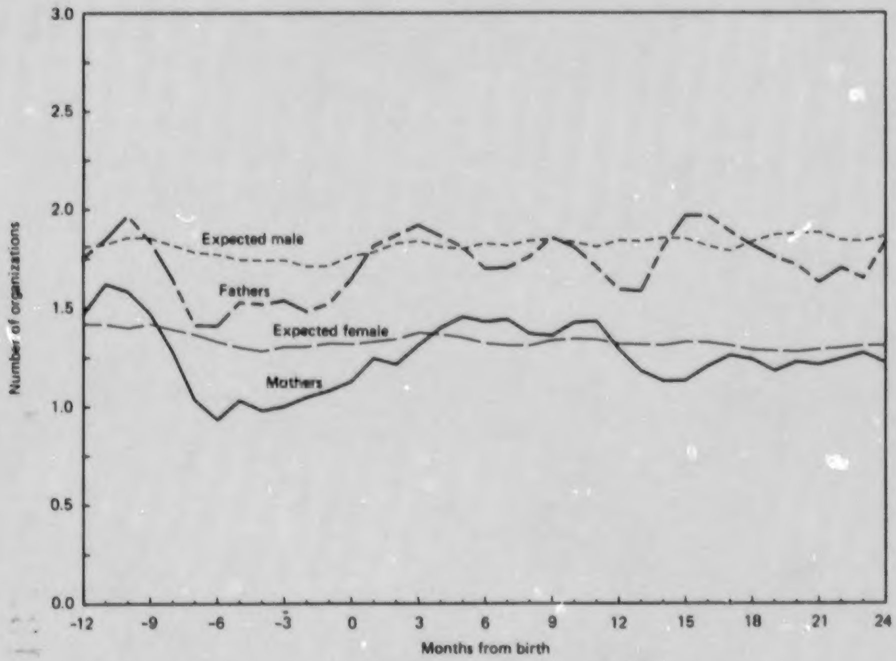

Fig. 9.1—Number of organizational memberships

redirect some of their time and energy away from the larger community and toward the marital or family unit.

We now turn to an examination of participation in political activities. First, we must note that our ability to relate the amount of political activity to the timing of family events is somewhat more limited than we would like. For example, respondents in 1976 were asked whether they were currently registered to vote and whether they had voted before October 1976. For the set of questions on campaigning and other political activities, they were asked to indicate which activities they had engaged in between October 1974 and October 1976. Obviously, these measures cover considerably longer periods of time than we would like, given our purpose of relating political activities to the timing of family events.

Table 9.3 shows the percentage of respondents in each marital and parenthood category who reported that they were registered to vote in 1974, 1976, and 1979. The percentages are quite high, suggesting that many NLS respondents may overreport voter registration.[2] Our main concern, however, is with the pat-

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[2] Census data for the 1978 election (U.S. Bureau of the Census, 1979) indicate that about 49 percent of all 20-to-24-year-old high school graduates were registered to vote that year, substantially fewer than the numbers in the NLS sample for 1976 and 1979.

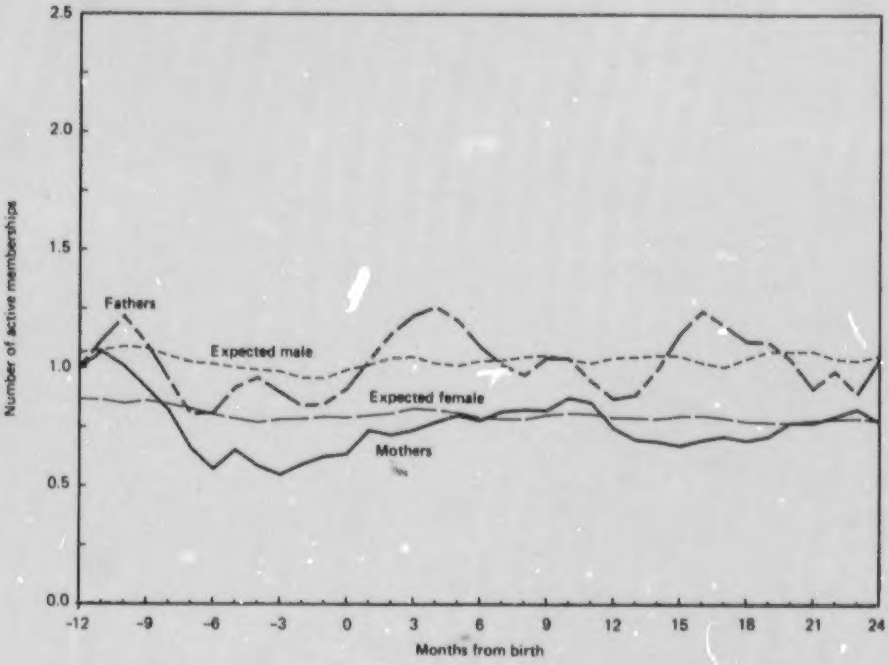

Fig. 9.2—Number of active organizational memberships

terns of changes in percentages over time. These show some evidence of parenthood effects, although not so clearly as the analogous data for community participation. The consistent trend is for recent parents to be less likely to be registered than other groups and than they themselves are at other times. For the most part, the differences are slight, however.

Table 9.4 displays analogous percentages for self-reported voting behavior. In interpreting the percentages, it should be kept in mind that the measure captures voting during any election held in the interval between surveys. Thus, we would expect the percentages to be somewhat higher than the percentages who voted in any single election.[3] Despite the crudeness of this measure, the percentages in the table are suggestive of parenthood effects. As with registration, the percentages are consistently lower among recent parents.

The NLS data suggest, then, that becoming a parent tends to depress registration and voting behavior, at least while the child is young. The effects seem

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[3] Again, the percentages are somehwat higher than we would expect on the basis of national census data. The U.S. Bureau of the Census (1979) reports that only about 29 percent of all 20-to-24-year-old high school graduates claimed to have voted in 1978. Cross-tabulations of voting in 1976 and 1978 for this age group suggest than an additional 22 percent claim to have voted in 1976 but not 1978. Thus we would expect only about half the NLS respondents to say they voted in either election, but nearly two-thirds claimed they did.

## Table 9.3

## PERCENTAGE REGISTERED TO VOTE BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | Males | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Size | | | | | Sample Size | |
| Parenthood Status | 1974 | 1976 | 1979 | Mean | Min. | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | |
| Single | 76.6 | 79.4 | 76.4 | 2431 | 2402 | 74.0 | 75.3 | 71.8 | 3304 | 3249 |
| Ever Married | 73.7 | 75.4 | 70.9 | 2606 | 2475 | 74.4 | 73.4 | 72.1 | 2255 | 2166 |
| Married Parents | 63.2 | 66.0 | 67.0 | 3476 | 3400 | 65.6 | 65.2 | 65.0 | 2395 | 2334 |
| After 9/76 | 71.6 | 71.6 | 69.5 | 1367 | 1333 | 70.8 | 69.2 | 68.1 | 1177 | 1131 |
| 10/74 - 9/76 | 60.4 | 62.2 | 65.2 | 1001 | 980 | 63.9 | 62.8 | 62.6 | 695 | 663 |
| 10/73 - 9/74 | 55.7 | 64.0 | 64.8 | 525 | 503 | 54.7 | 57.2 | 61.2 | 263 | 255 |
| 10/72 - 9/73 | 55.7 | 61.7 | 64.7 | 428 | 397 | 58.8 | 61.8 | 58.5 | 183 | 164 |
| Before 10/72 | 60.3 | 63.4 | 68.5 | 122 | 116 | 58.5 | 64.6 | 59.6 | 47 | 41 |
| Adoptive Parents | 70.3 | 68.4 | 65.4 | 78 | 74 | 69.8 | 64.7 | 52.7 | 173 | 162 |
| Unwed Parents | 61.8 | 69.1 | 70.8 | 692 | 636 | 62.0 | 63.6 | 66.9 | 384 | 360 |
| After 9/76 | 67.0 | 71.2 | 66.4 | 115 | 109 | 62.9 | 67.4 | 60.8 | 95 | 92 |
| 10/74 - 9/76 | 66.0 | 69.5 | 69.3 | 151 | 137 | 54.1 | 61.7 | 69.5 | 114 | 105 |
| 10/73 - 9/74 | 56.9 | 57.9 | 71.3 | 121 | 101 | 62.7 | 58.2 | 57.1 | 66 | 56 |
| 10/72 - 9/73 | 61.0 | 73.8 | 69.9 | 167 | 136 | 67.1 | 67.2 | 76.4 | 66 | 55 |
| Before 10/72 | 59.1 | 71.1 | 76.2 | 136 | 132 | 71.1 | 64.3 | 74.5 | 42 | 38 |
| Timing of first marriage: | | | | | | | | | | |
| After 9/76 | | | | | | | | | | |
| Nonparents | 77.3 | 80.2 | 74.2 | 1064 | 1045 | 76.4 | 77.0 | 73.6 | 1228 | 1210 |
| Married Parents | 76.4 | 75.4 | 68.4 | 297 | 292 | 71.2 | 70.3 | 65.8 | 352 | 344 |
| 10/74 - 9/76 | | | | | | | | | | |
| Nonparents | 76.4 | 76.3 | 70.8 | 790 | 733 | 74.3 | 70.3 | 70.2 | 679 | 615 |
| Married Parents | 72.4 | 68.4 | 66.3 | 767 | 750 | 70.0 | 67.7 | 67.6 | 783 | 760 |
| 10/72 - 9/74 | | | | | | | | | | |
| Nonparents | 68.0 | 67.2 | 65.7 | 616 | 575 | 68.1 | 67.4 | 69.8 | 323 | 298 |
| Married Parents | 59.7 | 64.9 | 67.6 | 1550 | 1514 | 62.5 | 62.6 | 63.4 | 1040 | 1006 |
| Before 10/72 | | | | | | | | | | |
| Nonparents | 55.5 | 70.1 | 68.3 | 133 | 120 | 65.2 | 68.0 | 71.4 | 23 | 21 |
| Married Parents | 56.8 | 62.1 | 66.1 | 853 | 822 | 55.5 | 59.9 | 60.6 | 213 | 204 |

# Table 9.4

## PERCENTAGE VOTING SINCE LAST SURVEY BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | Males | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Size | | | | | Sample Size | |
| Parenthood Status | 1974 | 1976 | 1979 | Mean | Min. | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | |
| Single | 66.7 | 74.3 | 74.0 | 2429 | 2402 | 66.6 | 70.8 | 72.6 | 3299 | 3242 |
| Ever Married | 64.8 | 70.6 | 72.0 | 2603 | 2477 | 67.3 | 72.3 | 72.6 | 2249 | 2162 |
| Married Parents | 53.3 | 59.8 | 63.7 | 3466 | 3394 | 57.1 | 61.8 | 61.7 | 2396 | 2331 |
| After 9/76 | 62.6 | 67.2 | 69.3 | 1362 | 1326 | 61.4 | 65.5 | 66.0 | 1177 | 1130 |
| 10/74 - 9/76 | 50.1 | 58.4 | 60.8 | 999 | 978 | 56.2 | 60.9 | 59.8 | 696 | 664 |
| 10/73 - 9/74 | 45.6 | 53.1 | 60.0 | 525 | 505 | 47.2 | 52.2 | 52.3 | 263 | 256 |
| 10/72 - 9/73 | 44.9 | 51.2 | 58.0 | 424 | 395 | 49.7 | 59.3 | 53.9 | 183 | 165 |
| Before 10/72 | 47.4 | 51.6 | 59.8 | 121 | 116 | 58.5 | 59.2 | 55.8 | 47 | 41 |
| Adoptive Parents | 55.4 | 62.0 | 60.0 | 77 | 74 | 60.2 | 64.7 | 53.2 | 173 | 161 |
| Unwed Parents | 47.2 | 54.3 | 60.9 | 689 | 634 | 49.4 | 54.5 | 56.5 | 384 | 363 |
| After 9/76 | 51.4 | 63.6 | 60.3 | 114 | 109 | 57.3 | 60.9 | 56.6 | 95 | 92 |
| 10/74 - 9/76 | 46.4 | 54.5 | 59.0 | 151 | 139 | 41.8 | 50.8 | 56.2 | 114 | 105 |
| 10/73 - 9/74 | 42.2 | 46.0 | 60.6 | 120 | 99 | 45.3 | 50.7 | 48.2 | 66 | 56 |
| 10/72 - 9/73 | 46.6 | 52.0 | 57.7 | 167 | 137 | 48.7 | 56.3 | 64.3 | 66 | 56 |
| Before 10/72 | 50.8 | 56.6 | 66.4 | 136 | 130 | 60.5 | 54.8 | 57.4 | 42 | 38 |
| Timing of first marriage: | | | | | | | | | | |
| After 9/76 | | | | | | | | | | |
| Nonparents | 67.9 | 73.4 | 75.8 | 1063 | 1048 | 68.9 | 74.4 | 75.2 | 1225 | 1205 |
| Married Parents | 64.1 | 68.4 | 70.9 | 295 | 290 | 59.3 | 66.6 | 62.1 | 353 | 344 |
| 10/74 - 9/76 | | | | | | | | | | |
| Nonparents | 67.3 | 72.8 | 72.8 | 788 | 732 | 67.9 | 71.3 | 70.2 | 677 | 614 |
| Married Parents | 61.5 | 67.2 | 66.0 | 766 | 746 | 62.2 | 64.8 | 66.1 | 782 | 756 |
| 10/72 - 9/74 | | | | | | | | | | |
| Nonparents | 60.4 | 66.0 | 65.2 | 616 | 575 | 61.2 | 67.3 | 67.1 | 323 | 298 |
| Married Parents | 52.1 | 58.5 | 64.0 | 1546 | 1512 | 54.2 | 59.0 | 58.5 | 1042 | 1008 |
| Before 10/72 | | | | | | | | | | |
| Nonparents | 46.7 | 57.3 | 66.7 | 133 | 120 | 52.2 | 68.0 | 66.7 | 23 | 21 |
| Married Parents | 44.7 | 52.2 | 58.5 | 850 | 820 | 50.0 | 56.6 | 58.8 | 213 | 204 |

to lessen over time, in that those who have been parents for some time tend to show above-average increases in reported voting from one survey to another. Figure 9.3 displays in graphical form the relationship between timing of parenthood and voting behavior. Because of the crudeness in the voting measure, the details of the plot should not be taken seriously. What is worth noting is that the voting behavior of married mothers drops well below that of comparable nonparents and remains depressed for a considerable time. The results for fathers are considerably less stable and are not shown.

Despite the crudeness of our measures, the data indicate that expectant parents and parents of preschool children are less likely to vote. Moreover, we see evidence of this phenomenon for both men and women.

Regression results from our analyses for ever-married nonparents indicate that marriage has a modest negative effect on voter registration for both men and women, but little or no effect on actual voting.

What about participation in other political activities? Does parenthood also have a negative effect on active participation in political campaigns and the like? Table 9.5 displays mean frequency ratings for the composite score of political activity. (Higher scores reflect greater frequency.) Here we see no consistent pattern of change in response to parenthood for either men or women. Moreover, when this composite index is plotted against timing of entry into parenthood, there is no consistent relationship (the graph is not

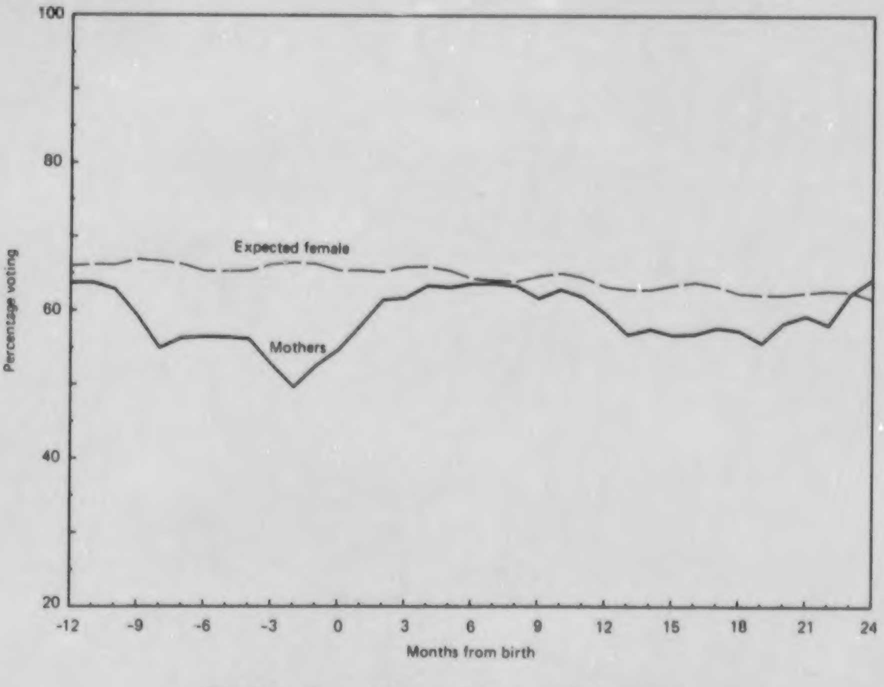

Fig. 9.3—Proportion voting since last survey

## Table 9.5

## COMPOSITE SCORE OF POLITICAL PARTICIPATION BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | Males | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Sample Size | | | | | Sample Size | |
| Parenthood Status | 1974 | 1976 | 1979 | Mean | Min. | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | |
| Single | 1.36 | 1.31 | 1.30 | 2400 | 2375 | 1.36 | 1.34 | 1.33 | 3261 | 3201 |
| Ever Married | 1.33 | 1.28 | 1.25 | 2577 | 2449 | 1.35 | 1.32 | 1.30 | 2230 | 2148 |
| Married Parents | 1.27 | 1.23 | 1.23 | 3430 | 3353 | 1.30 | 1.28 | 1.28 | 2371 | 2307 |
| After 9/76 | 1.30 | 1.25 | 1.23 | 1347 | 1309 | 1.32 | 1.30 | 1.30 | 1167 | 1120 |
| 10/74 - 9/76 | 1.26 | 1.22 | 1.22 | 989 | 966 | 1.30 | 1.27 | 1.27 | 688 | 658 |
| 10/73 - 9/74 | 1.23 | 1.23 | 1.23 | 519 | 495 | 1.26 | 1.23 | 1.25 | 259 | 250 |
| 10/72 - 9/73 | 1.25 | 1.25 | 1.24 | 423 | 391 | 1.23 | 1.28 | 1.25 | 182 | 164 |
| Before 10/72 | 1.23 | 1.22 | 1.21 | 120 | 115 | 1.31 | 1.26 | 1.23 | 47 | 41 |
| Adoptive Parents | 1.31 | 1.31 | 1.28 | 76 | 74 | 1.32 | 1.27 | 1.29 | 171 | 159 |
| Unwed Parents | 1.30 | 1.29 | 1.27 | 682 | 626 | 1.35 | 1.30 | 1.32 | 383 | 357 |
| After 9/76 | 1.32 | 1.32 | 1.33 | 112 | 107 | 1.35 | 1.31 | 1.35 | 95 | 92 |
| 10/74 - 9/76 | 1.29 | 1.30 | 1.33 | 150 | 138 | 1.31 | 1.27 | 1.29 | 114 | 105 |
| 10/73 - 9/74 | 1.31 | 1.24 | 1.25 | 119 | 97 | 1.35 | 1.30 | 1.36 | 66 | 56 |
| 10/72 - 9/73 | 1.31 | 1.28 | 1.21 | 164 | 134 | 1.41 | 1.34 | 1.31 | 66 | 55 |
| Before 10/72 | 1.27 | 1.28 | 1.24 | 135 | 129 | 1.39 | 1.35 | 1.31 | 41 | 38 |
| Timing of first marriage: | | | | | | | | | | |
| After 9/76 | | | | | | | | | | |
| Nonparents | 1.38 | 1.30 | 1.26 | 1055 | 1038 | 1.36 | 1.34 | 1.29 | 1216 | 1194 |
| Married Parents | 1.34 | 1.26 | 1.24 | 292 | 286 | 1.31 | 1.34 | 1.32 | 349 | 338 |
| 10/74 - 9/76 | | | | | | | | | | |
| Nonparents | 1.31 | 1.26 | 1.23 | 781 | 726 | 1.35 | 1.30 | 1.29 | 671 | 607 |
| Married Parents | 1.32 | 1.25 | 1.23 | 758 | 739 | 1.35 | 1.29 | 1.29 | 774 | 750 |
| 10/72 - 9/74 | | | | | | | | | | |
| Nonparents | 1.28 | 1.26 | 1.25 | 608 | 566 | 1.32 | 1.30 | 1.33 | 319 | 293 |
| Married Parents | 1.25 | 1.22 | 1.23 | 1528 | 1489 | 1.27 | 1.26 | 1.27 | 1031 | 996 |
| Before 10/72 | | | | | | | | | | |
| Nonparents | 1.22 | 1.24 | 1.29 | 132 | 117 | 1.22 | 1.30 | 1.42 | 22 | 20 |
| Married Parents | 1.24 | 1.23 | 1.23 | 843 | 809 | 1.28 | 1.27 | 1.27 | 211 | 203 |

shown). Given the crudeness of this measure with respect to the timing of these political activities, we are unwilling to conclude much about whether this result reflects the lack of a true relationship with parenthood, or whether it merely reflects the insensitivity of the measure. We should note, however, that our regression results for this measure (App. B) indicate a small but significant marriage effect, such that married men and women are less active politically. This may be related to the reduced level of community participation among the married that we noted above.

To sum up: Entry into parenthood appears to reduce, for both men and women, the number of extrafamilial groups with which the new parent is affiliated and the amount of activity devoted to those groups. This reduction in activity occurs in addition to a similar reduction associated with marriage. The parenthood-induced decline in activity begins before the baby is born and persists (albeit with some recovery) for months or even years thereafter. About the time the oldest child attains school age, however, the parenthood effect appears to reverse itself—that is, at that point parents tend to be affiliated with more groups than comparable nonparents.

Entry into parenthood also appears to depress the frequency with which parents engage in certain political activities, such as registration and voting. Again, this effect appears to occur only while children are in the preschool stage.

# Chapter 10

# FINANCIAL WELL-BEING

## INTRODUCTION

This chapter assesses the effects of parenthood on financial well-being within two years of the first birth for ever-married young men and women. As this report focuses on the consequences of parenthood for the *activities* of young adults, analysis of financial well-being is somewhat tangential. However, changes in activities may lead to changes in income and assets and therefore in economic well-being.

In this chapter we examine the effects of parenthood on a number of measures of an individual's or couple's economic status: (1) family income; (2) welfare recipiency; (3) residential dependency; (4) home ownership; and (5) the market value of the home. Of these, home ownership and value were obtained in the NLS only in the 1979 follow-up, but all the others are available for several years between 1972 and 1979.

Although a number of researchers have explored the impact of a birth on the income and asset position of families, they have reached different conclusions. Hofferth (1983) finds that family income declines significantly with the first birth, partly because of reductions in the wife's labor income, but also because the husband's earnings are lower after a first birth than those of childless husbands in the same period. Cramer (1979a) finds that, in couples with at least one child who had an additional birth, husbands increased their employment by nearly 200 hours per year, with an associated rise in earnings of over $700. Smith and Ward (1980) find that the impact of children on family income, consumption, and savings is complex, depending on family size, child spacing, and marital duration. Family consumption actually declines with the birth of a child, according to this research. However, in marriages of short duration, income falls more than consumption, because of reductions in the wife's earnings. For marriages of longer duration, consumption falls more and earnings fall less, yielding an increase in savings with the addition of a child to the household.

Most of the other research on the effects of parenthood on family financial position has compared families with an "early" first birth—either premaritally conceived or occurring at an early age—with other families. This research has found that rapid childbearing early in marriage inhibits asset accumulation and that these effects persist over the course of the marriage (Freedman and Coombs, 1966; Coombs and Freedman, 1970; Freedman and Thornton, 1979). Hofferth and Moore (1979) report that women who have an early first birth complete less education, have reduced earnings and family income, and have larger families, so that the incidence of poverty is greater for them than for later childbearers.

We expect that the NLS sample of parents will be well off economically compared with nonparents, primarily because the parents will have devoted more of their post-high school years to work and the nonparents more of their time to school. For this reason, and because a higher proportion will also be employed at the time of measurement, parents should have higher incomes, lower residential dependency, and more accumulated assets than nonparents. These expectations are based on the fact that the NLS covers only the young adult ages. We would expect that parents' economic advantage will probably erode as more of those currently childless finish school or advanced training and enter more lucrative occupations than the ones followed by the parents.

## PARENTHOOD EFFECTS ON FINANCIAL WELL-BEING

Table 10.1 presents total family income in current dollars for males and females by timing of marriage and parenthood. This table shows the same basic pattern for both sexes, so we discuss them together. First, note that all groups of parents and nonparents show steadily increasing family income over the period, as more of them leave school and part-time work to enter the occupations in which they will make their careers; during this period, prices rose 74 percent (U.S. Department of Commerce, 1984: S-10). Much of the difference between parents and nonparents arises from variations in rates of full-time employment and from family composition, rather than from differences in earnings given employment. Thus, single nonparents have very low total family incomes in virtually every year, primarily because they have lower proportions employed full time and have, by definition, only one earner in the family. Married nonparents, both male and female, have the highest family incomes in 1979, because relatively few of them remain in school (see Table 7.1) and the large majority of the wives work full time (see Table 5.2). Married parents have lower total incomes because of the much lower employment rates of the wives in these families. And unwed mothers and fathers have lower average family incomes than any other group except single nonparents. This economic disadvantage arises presumably from their family composition—and lack of access to a second earner—and from their personal characteristics, discussed earlier, which lead them to jobs that pay relatively poorly. Note that unwed fathers, who in most cases do not live with their offspring or provide care or routine support, have family incomes somewhat higher than unwed mothers, and higher than single nonparents.

Comparisons within marriage cohorts show the decline in family income that accompanies childbirth and the frequently associated labor force withdrawal of the wife. Among men and women married at about the same time, those who are childless have higher family incomes than the parents. The only exceptions appear for couples who married before October 1972, for whom parents have slightly higher incomes than nonparents in the last several years. These couples probably have somewhat older children than the more recent marriage cohorts, and more of the wives have probably returned to work, augmenting family finances. In addition, as we saw in our analysis of marital dissolution, more of the parents than nonparents in each marriage cohort remain in intact couples, raising the number of potential earners.

## Table 10.1

## TOTAL FAMILY INCOME BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | | Males | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Sample Size | | | | | | | | Sample Size | |
| Parenthood Status | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | Mean | Min. | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | | | |
| Single | 2612 | 3282 | 4504 | 6521 | 7938 | 9413 | 1800 | 1345 | 3875 | 4626 | 5532 | 7651 | 9434 | 11423 | 2440 | 1824 |
| Ever Married | 5375 | 7462 | 9880 | 14134 | 17543 | 21083 | 1884 | 1511 | 5261 | 7079 | 9259 | 13269 | 16838 | 21204 | 1677 | 1277 |
| Married Parents | 7707 | 9693 | 11227 | 13879 | 16155 | 17762 | 2517 | 2004 | 7456 | 9126 | 11012 | 13441 | 15703 | 17946 | 1822 | 1386 |
| After 9/76 | 6011 | 9171 | 11633 | 15437 | 17850 | 18850 | 994 | 738 | 6752 | 8695 | 10872 | 14030 | 16360 | 18372 | 902 | 646 |
| 10/74 - 9/76 | 8835 | 10082 | 10710 | 12838 | 14859 | 17058 | 722 | 549 | 7910 | 9332 | 11165 | 12966 | 15200 | 17668 | 525 | 410 |
| 10/73 - 9/74 | 8630 | 10024 | 11407 | 13057 | 15373 | 17115 | 379 | 327 | 8190 | 9446 | 11002 | 12607 | 14743 | 17208 | 196 | 164 |
| 10/72 - 9/73 | 8364 | 9856 | 10905 | 12659 | 15136 | 17087 | 309 | 288 | 8230 | 10118 | 11074 | 12399 | 14724 | 17243 | 144 | 132 |
| Before 10/72 | 8964 | 10719 | 11607 | 12748 | 14866 | 16922 | 88 | 78 | 10178 | 11196 | 12724 | 13884 | 15378 | 17984 | 32 | 19 |
| Adoptive Parents | 6053 | 9166 | 11069 | 15859 | 19045 | 23205 | 55 | 41 | 6345 | 7919 | 10340 | 13171 | 15693 | 18247 | 127 | 90 |
| Unwed Parents | 3337 | 4720 | 6080 | 7757 | 8790 | 10488 | 487 | 410 | 4927 | 6221 | 7311 | 10217 | 11898 | 14056 | 280 | 250 |
| After 9/76 | 3357 | 3247 | 4027 | 5994 | 7021 | 8864 | 84 | 58 | 4621 | 5493 | 6006 | 9044 | 11362 | 13735 | 74 | 55 |
| 10/74 - 9/76 | 2184 | 3337 | 4739 | 7863 | 7948 | 9139 | 106 | 91 | 3984 | 5636 | 7003 | 10090 | 11630 | 13915 | 82 | 72 |
| 10/73 - 9/74 | 2421 | 3788 | 4859 | 6567 | 8837 | 10765 | 87 | 71 | 4800 | 6640 | 7548 | 8670 | 10541 | 11695 | 45 | 39 |
| 10/72 - 9/73 | 3917 | 6526 | 8056 | 8196 | 8964 | 10533 | 112 | 105 | 5645 | 6826 | 8552 | 11761 | 13412 | 15058 | 47 | 45 |
| Before 10/72 | 4730 | 6209 | 8010 | 9923 | 11216 | 13188 | 95 | 72 | 8461 | 8013 | 8850 | 13160 | 13555 | 16521 | 30 | 19 |
| Timing of first marriage: | | | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | | | |
| Nonparents | 2713 | 3665 | 5020 | 12502 | 17242 | 22292 | 783 | 594 | 4144 | 4890 | 6325 | 11504 | 15828 | 21434 | 916 | 676 |
| Married Parents | 3115 | 4033 | 5001 | 14550 | 18280 | 19137 | 213 | 152 | 5233 | 5847 | 7031 | 12331 | 15273 | 17094 | 266 | 181 |
| 10/74 - 9/76 | | | | | | | | | | | | | | | | |
| Nonparents | 3056 | 8518 | 13298 | 16565 | 19253 | 21783 | 557 | 426 | 5060 | 8686 | 12465 | 15990 | 18725 | 21679 | 507 | 390 |
| Married Parents | 3154 | 9582 | 12581 | 14616 | 16601 | 17743 | 545 | 379 | 5379 | 8911 | 11685 | 14128 | 16061 | 18487 | 601 | 404 |
| 10/72 - 9/74 | | | | | | | | | | | | | | | | |
| Nonparents | 10752 | 11749 | 13247 | 14309 | 16589 | 19031 | 444 | 409 | 9326 | 10897 | 12411 | 14566 | 17228 | 19583 | 235 | 199 |
| Married Parents | 9499 | 10580 | 11644 | 13703 | 15751 | 17667 | 1131 | 936 | 8904 | 10114 | 11676 | 13365 | 15651 | 17932 | 790 | 672 |
| Before 10/72 | | | | | | | | | | | | | | | | |
| Nonparents | 10000 | 11329 | 11754 | 12920 | 14877 | 16107 | 96 | 81 | 7280 | 11653 | 13281 | 18174 | 16881 | 16920 | 17 | 12 |
| Married Parents | 9111 | 10206 | 11495 | 13276 | 15713 | 17467 | 621 | 534 | 9521 | 10384 | 11470 | 13028 | 15263 | 17449 | 160 | 127 |

Because family income depends to such an extent on current family composition and employment of adult family members, and our regression model includes primarily background factors, marital duration, and educational attainment, our methods are poorly suited for estimating family financial well-being in the absence of parenthood. Thus, we do not present these estimates here. We also do not estimate financial well-being in the absence of parenthood for welfare dependency, for which we lack a suitable control group, or for home ownership or value, as these are available for only a single year. Our measure of residential dependency fits our criteria for estimating levels in the absence of parenthood, and we do present estimates for this measure when we discuss it.

Table 10.2 presents the percentage receiving welfare funds from any program (the relevant question asked merely about any receipts from "public assistance or welfare" for self or spouse). Given the eligibility requirements for Aid to Families with Dependent Children, we expect only mothers not currently married to qualify for welfare under this program. We also presume that few young adults qualify for other public assistance programs. Table 10.2 bears out our expectations, but also contains some surprises. First, women who were unmarried when their first child was born—the traditional welfare population—show the highest proportion receiving public assistance or welfare. But even in the year in which the child was born, when we know these women were not married and when they were presumably most in need of financial support, only a minority received public funds; for example, one-fifth of those who became mothers after September 1976 received welfare in any year through 1979. However, 43 percent of unmarried mothers who bore their first child between October 1974 and September 1976 received welfare in 1976, the highest rate for any unwed mothers in any year. But even these women decreased their recipiency rates by a year later, to 25 percent. Overall, 20 percent of the NLS women who ever had a child out of wedlock were receiving any public assistance funds in 1979, with rates declining the longer ago the birth took place.

This table also shows some welfare dependence among women married at the time of their first birth. Of those who had a child before September 1973, more than 7 percent were receiving welfare in 1979, presumably because of a marital dissolution that made them eligible for funds for dependent children. In addition, about one percent of married childless couples and single women got some public assistance funds, perhaps food stamps or disability income. A small proportion of men—both parents and childless—received public assistance in any of the years we examine. We also see higher rates of welfare recipiency for married parents—both male and female—in every marriage cohort than for the childless. Again, we attribute most of this to divorce or separation and the dependency of the children involved.

Table 10.3 gives the percentages of males and females living with their parents, by timing of marriage and parenthood. We see first that residential dependence depends primarily on marriage; only 6 percent of the married nonparents of either sex lived with their parents in 1979, whereas more than a half of the single childless males and females did so through 1976, and more than a third thereafter. Among the unmarried, mothers were almost as likely to live at home as single nonparents; unwed fathers were somewhat less likely to live

## Table 10.2

## PERCENTAGE RECEIVING WELFARE BENEFITS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1975 | 1976 | 1977 | 1978 | 1979 | Mean | Min. | 1975 | 1976 | 1977 | 1978 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 1.7 | 1.9 | 1.0 | 1.2 | 1.2 | 2069 | 2011 | 1.7 | 1.8 | 1.0 | 0.9 | 0.9 | 2775 | 2638 |
| Ever Married | 1.2 | 1.3 | 0.3 | 0.4 | 0.7 | 2157 | 2129 | 1.0 | 1.0 | 0.2 | 0.3 | 0.3 | 1889 | 1864 |
| Married Parents | 3.2 | 4.1 | 3.2 | 3.6 | 4.1 | 2915 | 2814 | 1.5 | 2.0 | 1.1 | 1.5 | 1.5 | 2057 | 1964 |
| After 9/76 | 0.4 | 0.5 | 1.3 | 1.8 | 2.5 | 1160 | 1109 | 1.0 | 1.2 | 0.6 | 1.0 | 1.0 | 1029 | 935 |
| 10/74 - 9/76 | 3.4 | 4.0 | 2.9 | 3.1 | 3.9 | 846 | 808 | 2.7 | 3.8 | 2.5 | 2.7 | 2.4 | 586 | 576 |
| 10/73 - 9/74 | 5.4 | 6.9 | 5.6 | 5.3 | 5.5 | 432 | 419 | 1.3 | 1.4 | 0.9 | 0.9 | 1.9 | 219 | 216 |
| 10/72 - 9/73 | 7.3 | 9.8 | 6.6 | 7.6 | 7.0 | 346 | 341 | 0.6 | 1.8 | 0.0 | 0.7 | 1.4 | 157 | 148 |
| Before 10/72 | 8.2 | 11.5 | 5.7 | 8.5 | 7.6 | 101 | 96 | 0.0 | 0.0 | 2.4 | 2.4 | 2.4 | 37 | 32 |
| Adoptive Parents | 1.6 | 1.6 | 7.8 | 7.2 | 7.1 | 66 | 63 | 0.8 | 3.2 | 1.9 | 4.3 | 6.9 | 146 | 124 |
| Unwed Parents | 27.3 | 31.9 | 20.3 | 21.7 | 19.8 | 592 | 590 | 3.2 | 4.1 | 1.3 | 2.3 | 2.6 | 320 | 305 |
| After 9/76 | 2.3 | 8.1 | 13.5 | 22.3 | 21.4 | 101 | 86 | 0.0 | 0.0 | 1.1 | 0.0 | 3.3 | 87 | 82 |
| 10/74 - 9/76 | 31.7 | 42.8 | 25.8 | 20.8 | 22.9 | 134 | 130 | 3.6 | 5.4 | 1.2 | 2.4 | 4.9 | 93 | 82 |
| 10/73 - 9/74 | 37.2 | 39.1 | 21.8 | 21.2 | 19.6 | 104 | 97 | 3.5 | 5.4 | 2.1 | 8.5 | 2.2 | 50 | 46 |
| 10/72 - 9/73 | 31.9 | 33.1 | 17.2 | 21.4 | 18.9 | 134 | 126 | 7.1 | 8.9 | 1.9 | 0.0 | 0.0 | 53 | 52 |
| Before 10/72 | 25.2 | 28.3 | 22.8 | 22.6 | 16.3 | 118 | 111 | 2.8 | 0.0 | 0.0 | 2.9 | 0.0 | 35 | 34 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 1.8 | 1.6 | 0.6 | 0.4 | 0.9 | 906 | 867 | 0.9 | 0.9 | 0.3 | 0.4 | 0.4 | 1043 | 983 |
| Married Parents | 0.4 | 0.4 | 1.2 | 1.9 | 3.1 | 254 | 250 | 2.1 | 2.5 | 0.9 | 1.2 | 1.6 | 307 | 279 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 0.7 | 0.9 | 0.0 | 0.2 | 0.2 | 641 | 618 | 1.1 | 1.0 | 0.0 | 0.2 | 0.0 | 563 | 528 |
| Married Parents | 1.9 | 1.8 | 1.8 | 2.5 | 2.6 | 639 | 611 | 1.2 | 2.5 | 1.5 | 1.8 | 1.6 | 691 | 649 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 0.8 | 1.4 | 0.2 | 0.4 | 1.0 | 495 | 487 | 1.5 | 1.1 | 0.4 | 0.4 | 0.4 | 260 | 253 |
| Married Parents | 3.3 | 4.3 | 3.7 | 3.4 | 4.2 | 1300 | 1259 | 1.8 | 2.0 | 0.8 | 1.4 | 1.5 | 871 | 857 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 0.9 | 0.9 | 0.0 | 0.9 | 0.0 | 111 | 107 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20 | 19 |
| Married Parents | 5.4 | 7.1 | 4.2 | 5.8 | 5.8 | 714 | 686 | 0.6 | 0.0 | 1.1 | 1.1 | 1.6 | 180 | 171 |

## Table 10.3

## PERCENTAGE LIVING WITH PARENTS BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | Males | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Sample Size | | | | | | Sample Size | |
| Parenthood Status | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | |
| Single | 57.3 | 50.2 | 50.2 | 36.4 | 2415 | 2336 | 59.7 | 52.8 | 51.3 | 37.5 | 3298 | 3207 |
| Ever Married | 49.4 | 36.6 | 24.4 | 5.9 | 2613 | 2492 | 55.1 | 42.9 | 27.2 | 5.7 | 2246 | 2180 |
| Married Parents | 37.4 | 24.5 | 11.8 | 7.9 | 3477 | 3398 | 47.3 | 30.7 | 12.2 | 7.0 | 2399 | 2344 |
| After 9/76 | 53.9 | 37.4 | 15.5 | 6.3 | 1358 | 1323 | 59.9 | 41.3 | 16.8 | 5.7 | 1167 | 1121 |
| 10/74 - 9/76 | 44.0 | 21.7 | 8.1 | 8.0 | 993 | 975 | 52.1 | 29.2 | 7.5 | 7.2 | 692 | 667 |
| 10/73 - 9/74 | 13.9 | 11.8 | 10.5 | 10.1 | 533 | 505 | 23.8 | 8.6 | 6.6 | 8.2 | 269 | 257 |
| 10/72 - 9/73 | 10.9 | 10.6 | 11.1 | 9.1 | 440 | 397 | 6.4 | 9.4 | 13.2 | 15.4 | 193 | 169 |
| Before 10/72 | 12.2 | 16.9 | 14.5 | 10.3 | 120 | 115 | 2.2 | 7.1 | 3.9 | 2.0 | 47 | 42 |
| Adoptive Parents | 54.4 | 43.7 | 22.7 | 5.1 | 76 | 71 | 61.5 | 41.9 | 30.1 | 4.9 | 172 | 161 |
| Unwed Parents | 69.4 | 60.4 | 46.8 | 34.8 | 702 | 646 | 65.1 | 55.7 | 39.9 | 24.6 | 389 | 362 |
| After 9/76 | 72.5 | 66.4 | 55.2 | 48.3 | 114 | 109 | 65.2 | 69.7 | 56.4 | 22.4 | 95 | 92 |
| 10/74 - 9/76 | 76.3 | 74.2 | 56.9 | 37.0 | 154 | 138 | 66.1 | 65.5 | 38.6 | 34.3 | 116 | 105 |
| 10/73 - 9/74 | 76.6 | 59.7 | 45.9 | 34.6 | 123 | 104 | 66.1 | 43.4 | 36.2 | 12.1 | 64 | 56 |
| 10/72 - 9/73 | 69.1 | 57.1 | 41.3 | 31.9 | 175 | 141 | 67.9 | 44.3 | 29.2 | 23.2 | 71 | 56 |
| Before 10/72 | 52.3 | 44.3 | 34.6 | 24.5 | 134 | 131 | 53.8 | 38.5 | 30.2 | 24.4 | 41 | 39 |
| Timing of first marriage: | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | |
| Nonparents | 54.4 | 45.3 | 50.4 | 4.1 | 1063 | 1044 | 54.9 | 47.0 | 44.7 | 4.3 | 1221 | 1183 |
| Married Parents | 63.5 | 56.3 | 52.1 | 8.5 | 293 | 285 | 65.5 | 54.6 | 46.0 | 7.3 | 347 | 330 |
| 10/74 - 9/76 | | | | | | | | | | | | |
| Nonparents | 59.0 | 50.9 | 5.7 | 6.9 | 792 | 738 | 60.6 | 53.7 | 5.7 | 6.8 | 681 | 617 |
| Married Parents | 67.2 | 57.1 | 6.4 | 6.3 | 764 | 751 | 65.9 | 55.5 | 6.2 | 6.1 | 778 | 754 |
| 10/72 - 9/74 | | | | | | | | | | | | |
| Nonparents | 37.5 | 7.4 | 7.8 | 7.9 | 619 | 573 | 47.2 | 7.3 | 11.7 | 9.1 | 319 | 296 |
| Married Parents | 34.7 | 9.6 | 8.6 | 7.5 | 1555 | 1513 | 37.1 | 8.5 | 6.4 | 7.9 | 1049 | 1014 |
| Before 10/72 | | | | | | | | | | | | |
| Nonparents | 10.3 | 16.2 | 11.9 | 5.8 | 134 | 121 | 8.7 | 8.7 | 8.3 | 14.3 | 22 | 21 |
| Married Parents | 7.2 | 11.6 | 8.7 | 9.9 | 856 | 820 | 4.9 | 9.0 | 7.9 | 5.7 | 218 | 209 |

at home than nonparents. Single nonparents may live with their own parents either because they are still in school, or because they find it cheaper or more convenient to do so. Unwed mothers may receive help in childcare as well as financial support from their parents if they remain at home. We also note that among men and women who married at about the same time, rates of residential dependence match quite closely for parents and nonparents for all but the most recent marriage cohorts, in which parents have higher dependence. These findings fit closely with those from a study by Kobrin and DaVanzo (1984), which examines the process of leaving the parental home. Using the same data that we use here, the authors find that few married persons live with their parents, but some return home following a divorce, especially women with young children.

Figure 10.1 presents our estimates of expected residential dependence in the absence of parenthood for male and female ever-married parents. This figure suggests the existence of sizeable parenthood effects—at least for males—such that parents are less likely to live with their own parents than they would be if they had not had the first birth. Results for females are less clear-cut, showing reduction in residential dependency around the birth and perhaps some increase in dependency in the second year after the birth. As the regression model used to predict residential dependence in the absence of a first birth includes marital status and marital duration, our results imply that if married

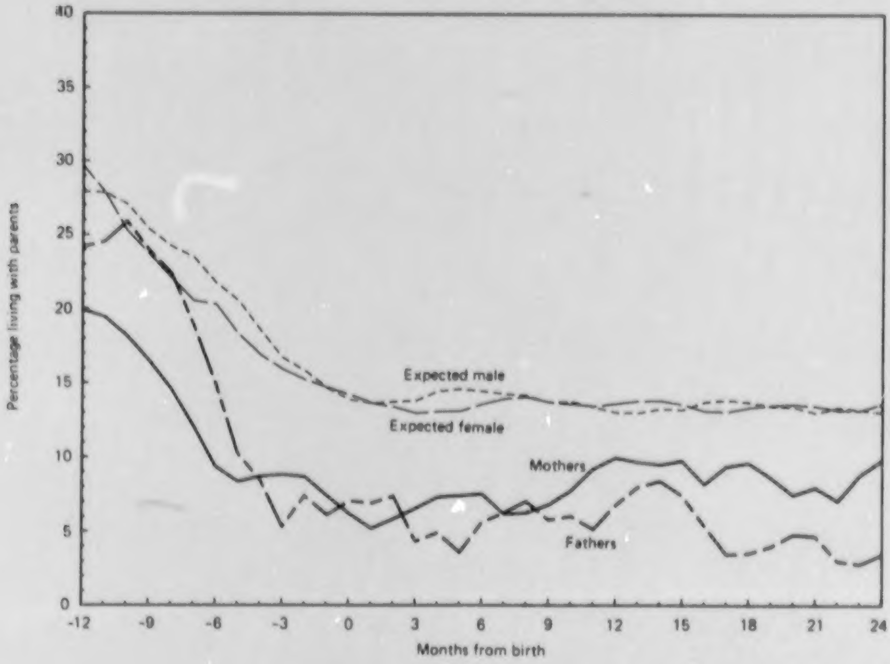

Fig. 10.1—Proportion living with their parents

parents followed the same residential dependence patterns as married nonparents, more of them would live at home. In the absence of parenthood, our results suggest that about 15 percent of both males and females would be living with their parents, compared with the 5 to 10 percent who actually do.

Our final indicators of financial well-being, home ownership and the value of the home, are shown in Table 10.4. Both these measures are available only for the final follow-up, precluding comparisons over time. This table shows higher rates of home ownership for married parents, about 60 percent, than for unmarried parents (about 20 percent), married nonparents (45 to 48 percent), or single nonparents (5 to 11 percent). Nationally, about one-third of married couples 20 to 24 years old own their own homes (U.S. Bureau of the Census, 1983), a rate somewhat lower than we observe in the NLS sample; data are not available for parents versus childless married couples. The NLS sample comprises those with high school education or more, and this relatively highly educated sample may have higher home ownership rates than the general population of the same age. Virtually no single nonparents in their mid-twenties own houses, and only about a quarter of unmarried mothers or fathers do. In both cases, this probably results from the relatively low family incomes of these groups, and their relatively high rates of residential dependence on their parents. Among marriage cohorts, both the parents and nonparents are likely to own a house, but somewhat more of the parents than the nonparents do so. However, the parents appear to have obtained earlier homeownership partly through buying cheaper houses; among the homeowners, nonparents own somewhat more expensive houses than parents who wed at about the same time. This suggests that parenthood pushes some people into buying a house before they are quite ready to do so, or that parents value owning more than nonparents and are willing to settle for a less expensive house in order to own. Our figures on home values show rather small differences between married and unwed parents. Apparently, the relatively small proportion of unwed mothers and fathers (who may have married since the birth of the child) who manage to buy a house do not pay substantially less for it than their married counterparts. These differences are especially small for unwed and married fathers.

## CONCLUSIONS

Our look at the consequences of parenthood for family financial well-being, while hampered by the constraints of our sample and data, has detected some differences in economic well-being across marital and parenthood categories. First, family income tends to fall with parenthood, at least in part because of the withdrawal from the labor force of some mothers. So we see higher family incomes for childless married couples—the group that most frequently has two full-time earners—than for any other group. Single nonparents and unwed mothers and fathers tend to have lower incomes than married parents. We attribute this relative disadvantage to the smaller number of potential earners for both groups, and to the personal characteristics of unwed parents, which put them at a disadvantage in the labor market.

We also see higher rates of welfare recipiency for unwed mothers than for any other category of parenthood; recipiency rates for this group hover around 20 percent in the years in which the child is of preschool age. Some may

## Table 10.4

## PERCENTAGE OWNING THEIR OWN HOME AND HOME VALUE BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | Males | | | |
|---|---|---|---|---|---|---|---|---|
| | Percentage | | Sample Size | | Percentage | | Sample Size | |
| Parenthood Status | Home Owner | Home Value | Mean | Min. | Home Owner | Home Value | Mean | Min. |
| Nonparents | | | | | | | | |
| Single | 5 | 39723 | 1271 | 125 | 11 | 43772 | 1852 | 383 |
| Ever Married | 48 | 49676 | 1780 | 1111 | 45 | 44193 | 1541 | 929 |
| Married Parents | 60 | 41343 | 2609 | 1859 | 55 | 37133 | 1782 | 1232 |
| After 9/76 | 62 | 45379 | 1080 | 794 | 56 | 39969 | 919 | 646 |
| 10/74 - 9/76 | 58 | 38604 | 735 | 510 | 56 | 33996 | 498 | 341 |
| 10/73 - 9/74 | 56 | 37792 | 378 | 260 | 51 | 33271 | 189 | 123 |
| 10/72 - 9/73 | 59 | 37811 | 299 | 211 | 54 | 36056 | 123 | 85 |
| Before 10/72 | 59 | 38319 | 99 | 72 | 61 | 31921 | 41 | 31 |
| Adoptive Parents | 67 | 42183 | 63 | 47 | 44 | 38259 | 132 | 80 |
| Unwed Parents | 20 | 35110 | 377 | 113 | 21 | 35442 | 211 | 71 |
| After 9/76 | 9 | 32503 | 67 | 12 | 15 | 41833 | 55 | 15 |
| 10/74 - 9/76 | 15 | 28409 | 76 | 16 | 19 | 37331 | 60 | 19 |
| 10/73 - 9/74 | 21 | 38437 | 59 | 16 | 15 | 33957 | 30 | 7 |
| 10/72 - 9/73 | 25 | 34992 | 86 | 33 | 28 | 26433 | 35 | 15 |
| Before 10/72 | 27 | 37588 | 88 | 36 | 32 | 36360 | 30 | 15 |
| Timing of first marriage: | | | | | | | | |
| After 9/76 | | | | | | | | |
| Nonparents | 43 | 51463 | 722 | 411 | 40 | 45790 | 344 | 469 |
| Married Parents | 52 | 47860 | 217 | 142 | 45 | 36306 | 257 | 158 |
| 10/74 - 9/76 | | | | | | | | |
| Nonparents | 53 | 51177 | 550 | 372 | 50 | 43681 | 454 | 296 |
| Married Parents | 57 | 43770 | 584 | 410 | 55 | 38786 | 579 | 396 |
| 10/72 - 9/74 | | | | | | | | |
| Nonparents | 51 | 47422 | 420 | 273 | 54 | 41114 | 225 | 152 |
| Married Parents | 61 | 40500 | 1158 | 827 | 60 | 36135 | 789 | 574 |
| Before 10/72 | | | | | | | | |
| Nonparents | 50 | 36846 | 86 | 54 | 57 | 33407 | 16 | 12 |
| Married Parents | 63 | 38708 | 643 | 476 | 52 | 36890 | 152 | 101 |

consider these rates rather low, given the eligibility requirements for these programs and the probable need of these women.

Finally, relatively few of the married live with their parents, although a substantial minority of the unmarried parents do so, as do more than a third of the single nonparents, even as late as 1979. Married couples tend to be homeowners, although we see some evidence that parenthood accelerates the process leading couples to buy a house. Relatively few unmarried parents own their own homes, but those who do report market values only slightly lower on average than those reported by married parents.

Although our analysis was not designed to identify those who are particularly disadvantaged on these and other measures of financial well-being, taken together our results paint a picture of a group of young people progressing at a reasonable pace toward financial independence. Even those who have their first child out of wedlock manage to avoid dependence on public assistance altogether, or failing that, to attain independence fairly soon after their child is born. Most married couples manage to buy their own house by their mid-twenties, and to achieve rather comfortable incomes.

## Chapter 11

# LOCUS OF CONTROL AND SELF-ESTEEM

## INTRODUCTION

In preceding chapters of this report, we have frequently sought to enlarge our understanding of how parenthood affects young adults' activities by examining certain related attitudes and orientations that may provide clues about the process underlying observed changes. For example, analysis of changes in career expectations helps us interpret changes in labor force participation. Similarly, analysis of educational expectations helps us interpret changes in enrollment and other forms of educational activity. In this chapter, we present results from our analysis of general subjective orientations that are not linked with specific areas of activity examined in this study, but that may nonetheless help us understand the context in which young people make decisions about their lives. The variables we examine are self-esteem and locus of control. Each represents an important aspect of how a person views himself and his relation to the world.

## SELF-ESTEEM

Self-esteem generally refers to a liking and respect for oneself. It may be the single most important aspect of the self-concept, representing as it does the evaluative integration of other, more specific components.

Whether or not it is the most important, it is certainly the most frequently studied; references in the literature run in the thousands. Yet, serious problems attend both the concept and its measurement. It has been variously defined and measured, with results that often conflict and confuse (Wylie, 1979). Until further progress is made in specifying exactly what the concept is and how best to measure it, this state of affairs is likely to continue—with an improvement, one hopes, in the quality of conceptualization and measurement.

Each wave of the NLS survey includes a shortened version of one of the more popular measures of generalized self-esteem, the Rosenberg self-esteem scale (Rosenberg, 1965). For our analyses we used the average coded response on a five-point scale to the following statements:

1. I take a positive attitude toward myself.
2. I feel I am a person of worth, on an equal plane with others.
3. I am able to do things as well as most people.
4. On the whole, I'm satisfied with myself.

Scoring: 1—"disagree strongly," . . . , 5—"agree strongly."

In 1979, two new items were added to partially rectify an imbalance in the direction of scoring, whereby those who agree ("acquiesce") to items regardless of content also tend to receive artifactually high self-esteem scores:

5. At times I think I am no good at all.
6. I feel I do not have much to be proud of.

Scoring: 1—"agree strongly," . . . , 5—"disagree strongly."

Inclusion of these last two items in the 1979 composite scale reduces comparability between responses in that year and responses in earlier years. Special caution must therefore be exercised in interpreting changes in average scores between 1979 and earlier years. This is especially the case in interpreting changes for subgroups known to have unusually high rates of acquiescent responding (e.g., blacks). The pre-1979 version of the measure appears to have adequate reliability for purposes of group comparison.[1]

## LOCUS OF CONTROL

"Locus of control" refers to the extent to which individuals perceive contingency relationships between their actions and their outcomes. The originator of the concept (Rotter, 1966) distinguished between individuals who believe that at least some control resides within themselves ("internals") and those who believe that their outcomes are determined by agents or factors extensive to themselves ("externals"). de Charms (1968) has made a similar distinction between those who believe themselves to be "origins" and those who believe that they are "pawns."

The belief that one can or cannot control one's fate is obviously an important belief to hold about oneself; not surprisingly, locus of control has been found to be related to several socially important variables. For example, "internals" are more likely to be campus office holders and (among males at least) to achieve significantly higher college grades (Brown and Strickland, 1972). The latter relationship seems to hold for blacks as well as whites (Gurin et al., 1969) and to be paralleled in higher aspirations among blacks who score high in internality. Studies of specific types of achievement-related behavior indicate that "internals" tend to be more persistent (Thurber, Heacock, and Peterson, 1974) and more reflective in task situations (Julian and Katz, 1968; Gozali et al., 1973), and to make better use of task-relevant information (Davis and Phares, 1967; Seeman, 1963; Pines, 1973). Becker and Hills (1981), examining unemployment among a national probability sample of teenagers, found locus of control as measured in 1966 to be a significant predictor of length of unemployment in 1975, with internals finding a new job faster than externals. Similarly, Andrisani and Nestel (1976), studying a national sample of middle aged males, found that internality was associated with better job outcomes, even when other factors were controlled. This effect was apparent in both cross-sectional and longitudinal analyses.

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[1] The National Center for Education Statistics (1977) reports a coefficient alpha of 0.66 for the four-item scale, based on the responses of more than 16,000 base year respondents. Kanouse et al. (1980) examined the stability of the measure for 6,478 NLS respondents who were employed full-time in October 1972. They found that test-retest correlations from each wave to the succeeding wave average 0.45 for females and 0.33 for males.

These and other studies suggest the potential utility of this construct in explaining aspects of behavior that are important both to the individual and to society. These might well include the decisionmaking processes that surround family formation. On theoretical grounds, for example, we would expect locus of control to be systematically related to the use of birth control, and indeed, there is some evidence that it is (MacDonald, 1970). However, locus of control might itself be affected by family formation events and their timing. Those who become parents before they have established themselves in the labor market might well experience a reduced sense of control over their lives. Others might also experience such a feeling for a time while they adjust to the increased responsibilities and reduced freedom of activity that typically accompany parenthood.

Locus of control is measured on the NLS as the average coded response on a five-point scale to the following statements:

1. Good luck is more important than hard work.
2. Every time I try to get ahead, something or somebody stops me.
3. Planning only makes a person unhappy since plans hardly ever work out anyway.
4. People who accept their condition in life are happier than those who try to change things.

Scoring: 1—"agree strongly," . . . , 5—"disagree strongly."

As with the self-esteem scale, the versions administered before 1979 had all items scored in the same direction. Acquiescent respondents, who tend to agree with statements regardless of content, would also tend to receive scores toward the "external" end of the scale. To reduce this problem, the 1979 follow-up added two new items that are scored in the opposite direction:

5. What happens to me is my own doing.
6. When I make plans, I am almost certain I can make them work.

Scoring: 1—"disagree strongly," . . . , 5—"agree strongly."

The pre-1979 version of the measure displays adequate reliability for group comparisons.[2]

There is reason to believe that parenthood might tend to lower parents' self-esteem and feelings of personal control over their lives. As we noted in Chap. 8, first-time parenthood can be a crisis for many parents, and is undoubtedly a new source of stress for most. Previous patterns are disrupted, new styles of coping must be learned. During the adjustment process, moments of self-doubt are probably inevitable. It is not hard to imagine that both self-esteem and the sense of personal control might suffer as a result of all this, at least temporarily.

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[2] The National Center for Education Statistics (1977) reports a coefficient alpha of 0.56. Kanouse et al. (1980) report average test-retest correlations across adjacent waves of 0.50 for females and 0.46 for males (based on data from 6,478 NLS respondents who were employed full-time in October 1972).

## RESULTS

Table 11.1 presents mean scores on the self-esteem measure by marriage and timing of parenthood. The pattern in the data suggests a possible parenthood effect for women. The sample as a whole shows steady gains in self-esteem scores over time. Among women who become parents at some time between October 1972 and October 1979, however, the gains are generally somewhat less. Although comparable in self-esteem with other women at baseline, by 1979 married or unmarried women who had become parents lag behind their ever-married or single counterparts. Inspection of the year-to-year changes for groups varying in the timing of parenthood reveals that the lag tends to begin in the year after the first birth. For example, married women who became parents between October 1973 and September 1984 show gains in the year *preceding* entry into parenthood that are actually somewhat higher than those shown by ever-married nonparents. In the year *following* entry into parenthood, however, they show no gain in self-esteem, compared with a gain of .08 among ever-married nonparents. This pattern of attenuated gains in the years immediately following parenthood is repeated for most cohorts of married and unmarried mothers.

Parenthood effects are also suggested by the data at the bottom of the table showing self-esteem scores among successive cohorts of women defined by timing of marriage. For each cohort married after October 1972, married women who had not yet become parents showed slightly greater gains in self-esteem than married parents during the interval in which parenthood occurred.

The results for unmarried mothers display an interesting additional feature. Women who had their first child out of wedlock by September 1976 have baseline self-esteem scores that are no lower than those of other single women. Indeed, they are slightly, though not significantly higher. This pattern differs markedly from the pattern suggested by an "esteem deficit" notion about the causes of unwed parenthood. According to that notion, women who have babies out of wedlock are trying to make up for a negative self-image. If that were the case, one would expect women who eventually became single mothers to have had lower self-esteem *before* they become mothers. They did not, however.

The right-hand panel of Table 11.1 presents analogous data for men. The evidence for a parenthood effect for men is considerably weaker than it is for women. Between 1972 and 1979, married men who become parents display lesser gains in self-esteem than do married nonparents. However, there is evidence that this lag is associated with timing of parenthood only for men who became parents after October 1974.

The table does provide indications that marriage increases men's self-esteem. This is most easily seen in the time series at the top of the table for ever-married and single nonparents, which show a widening gap in outcomes over time. From the data at the bottom of the table, we see that the married men also tend to display larger gains in self-esteem around the time of the marriage (in comparison with single nonparents). Regression results (App. B) offer further evidence that marriage has positive (but very small) effects on men's self-esteem. Regression results also indicate positive effects of marriage for women, although these are not apparent from the patterns of means in the table.

## Table 11.1

## SELF-ESTEEM SCORES BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 3.89 | 4.07 | 4.14 | 4.22 | 4.28 | 2330 | 1941 | 3.94 | 4.10 | 4.18 | 4.26 | 4.29 | 3171 | 2664 |
| Ever Married | 3.90 | 4.13 | 4.21 | 4.25 | 4.32 | 2519 | 2104 | 3.98 | 4.17 | 4.27 | 4.39 | 4.43 | 2170 | 1876 |
| Married Parents | 3.88 | 4.10 | 4.14 | 4.18 | 4.22 | 3335 | 2729 | 3.96 | 4.18 | 4.30 | 4.34 | 4.35 | 2310 | 1956 |
| After 9/76 | 3.88 | 4.10 | 4.17 | 4.24 | 4.25 | 1306 | 1082 | 3.97 | 4.19 | 4.31 | 4.37 | 4.36 | 1125 | 948 |
| 10/74 - 9/76 | 3.86 | 4.08 | 4.14 | 4.15 | 4.18 | 950 | 769 | 3.94 | 4.19 | 4.31 | 4.33 | 4.35 | 667 | 559 |
| 10/73 - 9/74 | 3.87 | 4.14 | 4.14 | 4.13 | 4.25 | 514 | 429 | 3.95 | 4.14 | 4.26 | 4.27 | 4.33 | 257 | 212 |
| 10/72 - 9/73 | 3.93 | 4.10 | 4.08 | 4.14 | 4.21 | 419 | 337 | 3.93 | 4.17 | 4.29 | 4.31 | 4.36 | 188 | 167 |
| Before 10/72 | 3.91 | 4.07 | 4.06 | 4.19 | 4.14 | 113 | 82 | 4.03 | 4.06 | 4.15 | 4.33 | 4.32 | 42 | 28 |
| Adoptive Parents | 3.81 | 4.12 | 4.17 | 4.25 | 4.26 | 75 | 63 | 3.90 | 4.14 | 4.21 | 4.28 | 4.39 | 163 | 128 |
| Unwed Parents | 3.95 | 4.06 | 4.11 | 4.17 | 4.22 | 672 | 543 | 3.99 | 4.14 | 4.24 | 4.28 | 4.32 | 375 | 322 |
| After 9/76 | 3.81 | 4.01 | 4.18 | 4.29 | 4.23 | 110 | 93 | 4.08 | 4.06 | 4.15 | 4.14 | 4.20 | 90 | 78 |
| 10/74 - 9/76 | 4.00 | 4.10 | 4.09 | 4.16 | 4.21 | 146 | 117 | 4.02 | 4.21 | 4.27 | 4.25 | 4.41 | 114 | 104 |
| 10/73 - 9/74 | 3.95 | 4.11 | 4.07 | 4.15 | 4.17 | 118 | 93 | 3.86 | 4.23 | 4.24 | 4.33 | 4.29 | 60 | 46 |
| 10/72 - 9/73 | 3.98 | 4.04 | 4.11 | 4.10 | 4.20 | 170 | 139 | 3.87 | 4.13 | 4.30 | 4.43 | 4.35 | 68 | 56 |
| Before 10/72 | 3.97 | 4.04 | 4.11 | 4.19 | 4.29 | 126 | 91 | 4.08 | 4.06 | 4.24 | 4.39 | 4.39 | 40 | 35 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 3.91 | 4.12 | 4.20 | 4.28 | 4.36 | 1023 | 848 | 4.00 | 4.16 | 4.24 | 4.38 | 4.44 | 1173 | 979 |
| Married Parents | 3.90 | 4.13 | 4.18 | 4.27 | 4.27 | 284 | 241 | 3.98 | 4.16 | 4.29 | 4.36 | 4.32 | 337 | 288 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 3.91 | 4.12 | 4.21 | 4.27 | 4.30 | 767 | 649 | 3.98 | 4.17 | 4.32 | 4.42 | 4.43 | 664 | 598 |
| Married Parents | 3.88 | 4.08 | 4.16 | 4.20 | 4.25 | 732 | 592 | 3.95 | 4.16 | 4.30 | 4.38 | 4.37 | 752 | 647 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 3.84 | 4.16 | 4.23 | 4.21 | 4.28 | 596 | 500 | 3.94 | 4.19 | 4.28 | 4.36 | 4.37 | 309 | 271 |
| Married Parents | 3.85 | 4.11 | 4.14 | 4.17 | 4.20 | 1493 | 1228 | 3.95 | 4.21 | 4.32 | 4.32 | 4.35 | 1006 | 839 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 3.91 | 4.03 | 4.11 | 4.15 | 4.25 | 129 | 102 | 3.93 | 4.13 | 4.26 | 4.40 | 4.35 | 23 | 20 |
| Married Parents | 3.93 | 4.11 | 4.11 | 4.16 | 4.21 | 817 | 659 | 3.98 | 4.15 | 4.24 | 4.28 | 4.35 | 208 | 176 |

All of the average individual effects noted above are extremely small. The standard deviation of the self-esteem measure is about .60 (varying somewhat by year); thus, most of the average effects we have discussed amount to little more than a tenth of a standard deviation. Of course, this does not mean that the effects on particular individuals are small. Quite possibly, some individuals are affected a good deal, others not at all. It should also be kept in mind that the measure is not very reliable. With a perfectly reliable measure, the average effects would presumably be larger relative to the size of the standard deviation.

Figure 11.1 summarizes the results of our analysis of the actual self-esteem scores of married parents in relation to the estimated expected self-esteem scores in the absence of parenthood. Scores for men are somewhat higher than those for women (a difference that was also apparent in Table 11.1). For men but not for women, parents' scores seem to be slightly lower overall than those of nonparents. For neither sex, however, is there a clear relationship between the timing of birth and changes in self-esteem.

The analysis in Fig. 11.1 affords a somewhat different picture of parenthood effects from the one suggested by the pattern of means in Table 11.1. Whereas the table indicates possible parenthood effects on women's self-esteem and weak effects (at best) for men, the smoothed time series of actual and estimated expected scores fail to provide evidence that self-esteem declines

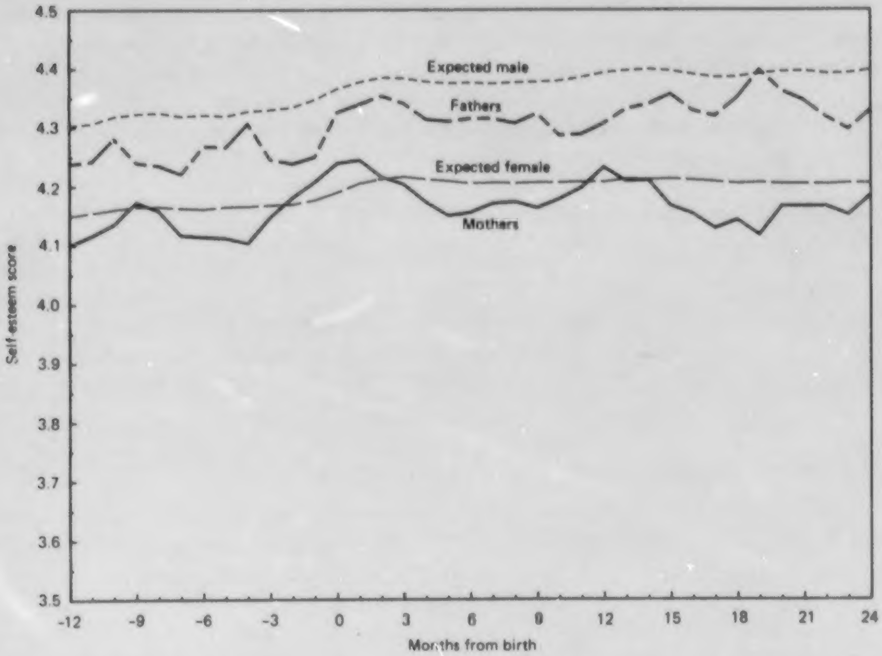

Fig. 11.1—Self-esteem scores

with parenthood for either sex. It appears that most of the modest differences between parents and nonparents can be attributed to differences in background characteristics or in other postsecondary activities.

Table 11.2 presents mean scores on the locus of control measure by marital and parenthood status. The data display two striking features: first, the large drop in average scores from 1976 to 1979, resulting from the addition of two new items; second, the sizeable differences between parents and nonparents that appear in every year from 1972 on. These differences are especially large for unwed mothers. In 1972, women who by 1979 would have a child out of wedlock scored 0.45 scale units (or about six-tenths of a standard deviation) lower than women who remained single and childless through 1979. Even among married women, preexisting differences between those who would later become parents and those who (through 1979) would not are much larger than the relative differences that emerge thereafter. This pattern differs markedly from the sort of pattern one would expect to find if parenthood affected locus of control. If anything, the data are more consistent with the converse interpretation—that locus of control may play a role in the events that lead to pregnancy, especially for unwed mothers.

A somewhat different picture emerges from our analysis of actual versus estimated expected scores on the locus of control measure in relation to the timing of parenthood As Fig. 11.2 shows, actual scores for married parents are, if anything, *higher* than we would expect given the parents' characteristics. This analysis suggests, then, that the deficits in feelings of personal control that we observe among married parents are entirely accounted for—and then some—by preexisting differences in background characteristics, along with differences in certain postsecondary activities. This analysis reinforces the conclusion that parenthood does not, by itself, reduce parents' feelings of personal control over their lives. In fact, the pattern of relative change in the figure suggests that the anticipation of parenthood may temporarily have a positive effect on locus of control for both married men and married women. (Note that the gap between actual and estimated expected outcomes widens from 12 months before the birth to about four months before the birth, then narrows sharply shortly after the birth.) In general, despite large zero-order differences between parents and nonparents in locus of control, the data provide no evidence that parenthood has consistent or lasting effects on this outcome variable.

## CONCLUSIONS

Overall, we find little evidence that parenthood has any substantial or systematic effects on these two measures of subjective outcomes. Parents are less likely than nonparents to report feelings of personal control over their lives, but the differences arise well before they enter parenthood. Mothers show slightly lower gains in self-esteem than nonmothers, but again, this may reflect preexisting differences. To the extent that these two measures provide some indication of how people feel about themselves as a result of the changes parenthood makes in their lives, our results suggest that parenthood has less net effect on these outcomes than on many of the activities we have examined.

## Table 11.2

### LOCUS OF CONTROL SCORES BY MARITAL AND PARENTHOOD STATUS

| | Females | | | | | | | Males | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | Sample Size | | | | | | | Sample Size | |
| Parenthood Status | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. | 1972 | 1973 | 1974 | 1976 | 1979 | Mean | Min. |
| Nonparents | | | | | | | | | | | | | | |
| Single | 3.90 | 3.94 | 3.93 | 3.98 | 3.27 | 2329 | 1942 | 3.73 | 3.83 | 3.82 | 3.88 | 3.24 | 3168 | 2664 |
| Ever Married | 3.88 | 3.96 | 3.96 | 4.01 | 3.25 | 2518 | 2102 | 3.74 | 3.87 | 3.88 | 3.99 | 3.26 | 2169 | 1872 |
| Married Parents | 3.75 | 3.83 | 3.83 | 3.88 | 3.17 | 3331 | 2728 | 3.56 | 3.76 | 3.76 | 3.83 | 3.17 | 2308 | 1952 |
| After 9/76 | 3.82 | 3.91 | 3.91 | 3.96 | 3.21 | 1306 | 1082 | 3.65 | 3.84 | 3.84 | 3.93 | 3.21 | 1124 | 949 |
| 10/74 - 9/76 | 3.74 | 3.82 | 3.83 | 3.86 | 3.16 | 949 | 769 | 3.52 | 3.73 | 3.71 | 3.76 | 3.16 | 666 | 557 |
| 10/73 - 9/74 | 3.69 | 3.81 | 3.80 | 3.85 | 3.13 | 512 | 428 | 3.51 | 3.67 | 3.64 | 3.74 | 3.06 | 256 | 212 |
| 10/72 - 9/73 | 3.63 | 3.74 | 3.71 | 3.79 | 3.12 | 419 | 338 | 3.43 | 3.62 | 3.68 | 3.75 | 3.18 | 187 | 167 |
| Before 10/72 | 3.77 | 3.64 | 3.68 | 3.68 | 3.06 | 113 | 81 | 3.32 | 3.47 | 3.69 | 3.86 | 3.17 | 42 | 27 |
| Adoptive Parents | 3.78 | 3.77 | 3.91 | 3.90 | 3.15 | 75 | 63 | 3.58 | 3.69 | 3.60 | 3.77 | 3.05 | 163 | 128 |
| Unwed Parents | 3.45 | 3.48 | 3.40 | 3.50 | 2.98 | 671 | 541 | 3.38 | 3.43 | 3.39 | 3.47 | 2.95 | 374 | 320 |
| After 9/76 | 3.73 | 3.67 | 3.55 | 3.63 | 3.02 | 109 | 92 | 3.34 | 3.48 | 3.45 | 3.47 | 2.86 | 90 | 78 |
| 10/74 - 9/76 | 3.37 | 3.45 | 3.41 | 3.45 | 3.00 | 145 | 116 | 3.54 | 3.44 | 3.47 | 3.46 | 3.01 | 114 | 102 |
| 10/73 - 9/74 | 3.38 | 3.42 | 3.26 | 3.37 | 3.02 | 118 | 94 | 3.21 | 3.31 | 3.22 | 3.35 | 2.92 | 60 | 46 |
| 10/72 - 9/73 | 3.41 | 3.43 | 3.36 | 3.52 | 2.93 | 170 | 139 | 3.31 | 3.41 | 3.30 | 3.65 | 2.91 | 68 | 56 |
| Before 10/72 | 3.40 | 3.48 | 3.47 | 3.53 | 2.97 | 126 | 91 | 3.36 | 3.49 | 3.49 | 3.41 | 3.06 | 40 | 35 |
| Timing of first marriage: | | | | | | | | | | | | | | |
| After 9/76 | | | | | | | | | | | | | | |
| Nonparents | 3.90 | 3.94 | 3.95 | 4.01 | 3.27 | 1022 | 847 | 3.79 | 3.90 | 3.90 | 4.03 | 3.27 | 1173 | 978 |
| Married Parents | 3.86 | 3.92 | 3.89 | 3.94 | 3.22 | 284 | 241 | 3.63 | 3.79 | 3.74 | 3.88 | 3.18 | 336 | 288 |
| 10/74 - 9/76 | | | | | | | | | | | | | | |
| Nonparents | 3.92 | 3.98 | 3.98 | 4.05 | 3.26 | 767 | 649 | 3.72 | 3.86 | 3.88 | 3.98 | 3.27 | 663 | 595 |
| Married Parents | 3.80 | 3.89 | 3.86 | 3.93 | 3.21 | 731 | 592 | 3.58 | 3.79 | 3.79 | 3.86 | 3.20 | 751 | 646 |
| 10/72 - 9/74 | | | | | | | | | | | | | | |
| Nonparents | 3.82 | 3.97 | 3.96 | 3.96 | 3.23 | 596 | 499 | 3.65 | 3.82 | 3.80 | 3.92 | 3.20 | 309 | 271 |
| Married Parents | 3.74 | 3.82 | 3.84 | 3.86 | 3.15 | 1491 | 1227 | 3.55 | 3.76 | 3.76 | 3.81 | 3.15 | 1005 | 836 |
| Before 10/72 | | | | | | | | | | | | | | |
| Nonparents | 3.85 | 4.00 | 3.97 | 3.99 | 3.21 | 129 | 102 | 3.40 | 3.43 | 3.49 | 3.58 | 3.11 | 23 | 20 |
| Married Parents | 3.67 | 3.78 | 3.78 | 3.84 | 3.15 | 816 | 659 | 3.46 | 3.63 | 3.68 | 3.76 | 3.18 | 208 | 176 |

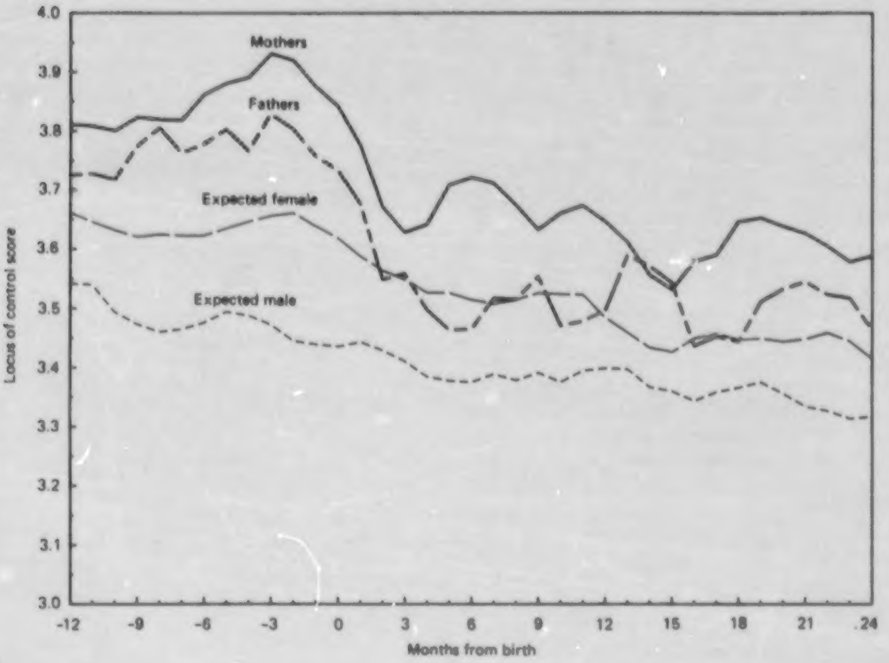

Fig. 11.2—Locus of control scores

# Chapter 12

# CONCLUSIONS

Our primary aim in this study has been to examine how the birth of a first child alters the amount of time parents spend in various activities. Our main focus has been on activities that relate to education and employment, but we have also examined community and political participation. In addition, we have examined certain outcomes, such as marital stability, financial well-being, and self-esteem, that reflect the quality of life associated with various life choices and activity patterns. Although we have not investigated these latter outcomes as thoroughly as the activities that form the main focus of our analysis, their inclusion helps us flesh out the results—especially with respect to the important question of what changes in activity patterns mean in the NLS respondents' lives.

Our analytic approach involves tracing the paths of young adults in the NLS for seven years following high school graduation. Respondents are classified according to their marital and parenthood status and the timing of the events surrounding family formation. To estimate the effects of parenthood, we compare changes in the activities of parents with the changes that we estimate would have occurred in the absence of parenthood. Although there is no way to know for certain what those changes would have been, they can be estimated in various ways. One way is to compare the changes in the outcomes of parents with changes in the outcomes of nonparents during the same time interval, using the latter as an estimate of what the former would have been in the absence of parenthood. To the extent that changes differ between the two groups, and the differences appear to be associated with the timing of parenthood, one can infer that these differences constitute evidence of parenthood effects. The tables we present are organized in a way that facilitates such comparisons, and we do in fact make them throughout the report. A better way of estimating what parents' outcomes would have been in the absence of parenthood is given by our individual effects methodology, which provides more detailed estimates of what parents' outcomes would have been on the basis of background characteristics and information on life events other than parenthood that affect young people's activities. The methodology is based on the premise that, in the absence of parenthood, parents would have experienced the same outcomes as nonparents with the same characteristics and life histories. Estimates of parenthood effects are derived by comparing changes in outcomes before and after entry into parenthood with analogous changes in outcomes that would have been expected in the absence of parenthood.

## LABOR FORCE ACTIVITIES AND JOB CHARACTERISTICS

Our analyses of the consequences of parenthood for employment activities and for the job characteristics of those employed show much larger effects of the first birth for women than for men. Most mothers leave the labor force at or before the birth of their first child, and many remain out for at least the two years following that birth. Women who keep their jobs, an important minority, tend to reduce their hours at work, but only slightly. The vast majority of the changes observed in work effort accompanying motherhood result from labor force withdrawal by the majority of mothers, relatively little from changes in hours of work for those who remain employed. Those women who keep their jobs experience small but noticeable declines in the *average* occupational prestige of their jobs, their hourly wages and, to a lesser extent, total weekly wages as a result of the birth. New mothers also tend to experience a decline in supervisory responsibility on their job, but no change in the amount of supervision that they receive. To the extent that these changes result from entry into parenthood, they support notions about the impact of the traditional division of labor within a family; even women who remain employed tend to achieve less in their jobs, on average, as a result of motherhood, presumably because they sometimes choose what is best for their family over what is best for their career. Of course, changes in average job characteristics for all mothers may reflect job shifts by a relatively small minority of new parents, since we would expect few changes in job characteristics for women who remain on the same job after the birth of their first child.

Men who become parents show higher levels of work activity on virtually all our measures of this behavior, but these "parenthood effects" often predate parenthood by a substantial amount. We reason that men who work hard may, as a result, be able to undertake the demands of fatherhood somewhat sooner than other men, and that timing of parenthood responds to rather than determines work effort. There is some evidence that men increase their hourly and weekly wages in the months before the baby is born. We speculate that the anticipated financial pressures of the new dependent (or dependents, if the wife leaves the labor force) induce fathers to seek ways to boost their incomes.

Our analysis also shows marked parenthood effects on women's homemaking activities and their expectations of being a full-time homemaker in the future. Not surprisingly, marriage also has strong effects on these activities, but our results indicate that entry into parenthood pushes women still further in the direction of assuming traditional roles.

The evidence just cited leads us to conclude that parenthood has substantial and sustained effects on women's employment activity, although these effects are not evenly distributed across the population of mothers. A minority—about 20 percent—of new mothers continue to hold their jobs throughout the pregnancy and after giving birth, and seem to experience relatively few effects of parenthood on their employment. The majority of mothers give up paid employment completely, at least for the short run.

The effects of parenthood on men's employment activities are less clear-cut, but there is evidence that some fathers are more likely to seek or accept overtime assignments in the months preceding and following the birth. These effects do not appear to be enduring ones, however.

## EDUCATIONAL ACTIVITIES

Previous research has established that there is a strong association between the timing of family formation and educational attainments, at least for women. Our analyses indicate that this association partly reflects causal effects of parenthood on the educational activities of married women. These effects occur primarily through enrollment; that is, many married mothers leave school around the time their babies are born. Most of those who leave school do not soon return. Of course, not all married mothers leave school; our results indicate that those who remain tend to maintain their previous level of activity rather than reduce it.

Perhaps surprisingly, we find little evidence that parenthood reduces the educational progress of unwed mothers. In fact, both the attainments and expectations of unwed mothers are greater on average than those of married mothers. Thus, the depressing effect of parenthood on women's educational progress occurs mainly in the context of marriage.

Men's educational progress, like women's, is related to parenthood status. At almost all points of measurement, fathers are less apt to be enrolled in school than are childless men. However, these differences arise well before the fathers enter parenthood, suggesting that the timing of parenthood may be more influenced by educational progress than the reverse. It stands to reason that men whose primary activity is being a student will tend to postpone parenthood.

In general, our results indicate that the effects of parenthood on educational activities are most pronounced among married women. Men who are in school seem to avoid becoming parents, but there is little evidence that those who do become parents cut back on their educational commitments.

## MARITAL INSTABILITY

Among the strongest parenthood effects disclosed by our analyses are those for marital dissolution. We find that both males and females who had a first birth during the survey period show substantially lower divorce rates than those who did not have children; this is so at all points after the birth. Among marriage cohorts, these effects are clear-cut and striking. We estimate that more than 20 percent of married parents of both sexes would have dissolved their marriage within two years of the time of the first birth had this birth not occurred, compared with the 5 to 7 percent divorce rate. Our analysis does not tell us *why* men and women who become parents have more stable marriages. Perhaps those couples with better marriages are more likely to have children, or those who would divorce less readily whatever the state of their marriage are more oriented toward parenthood. Or perhaps having a child makes a couple more stable, by increasing the rewards from the union, by raising the costs of divorce, or by making the couple more reluctant to divorce. But our analysis does point to a strong relationship between parenthood and marital stability, whatever its etiology.

## SOCIAL AND POLITICAL PARTICIPATION

For both men and women, we find that entry into parenthood reduces the number of extrafamilial groups with which the person is affiliated and the amount of activity devoted to those groups. The period of reduced participation begins before the baby is born and continues until the child attains school age. From that point on, the trend reverses itself; that is, parents tend to be affiliated with *more* groups than we estimate they would be if they had not become parents.

Our results for political participation are similar. Parents of preschool children appear to be less likely to register and to vote than nonparents. Again, however, the effects appear to be temporary.

These results corroborate and extend earlier findings that had suggested the importance of family life-cycle stages in accounting for community and political participation. However, most previous studies focused on women. An important contribution of our study is that it establishes that parenthood restricts the participation of both men and women for several years. This finding has implications for the type of process that underlies the reduction in extrafamilial activity. For example, it suggests that any explanation involving roles should focus on those aspects of the parenthood role that are shared by fathers and mothers rather than those that are sex-specific.

## FINANCIAL WELL-BEING

To give a more complete picture of the changes that occur with parenthood, this report discusses the consequences of parenthood for the family's financial well-being. Our sample and methods do not lend themselves to a detailed analysis of economic consequences of the first birth, and for this reason we must interpret our findings with caution. But we do see some consistent—and interpretable—differences in the financial status of parents and nonparents. First, family income tends to fall with parenthood, in large part, we argue, because of the withdrawal from the labor force of some new mothers. Family income at this relatively early stage in the careers of most NLS respondents depends to a substantial degree on the number of earners in the family and the number of hours they work. So families with only one earner—many married couples with a young child, unwed mothers and fathers, and single childless men and women—tend to have lower family incomes on average than married childless couples, the group most likely to have two full-time workers.

As might be expected, women who were unmarried at the time of the first birth show higher rates of welfare recipiency than any other group; but these rates may be lower than some would expect, considering the difficulties of working to support oneself and a young child in these circumstances. At no time does the percentage of unmarried mothers in the NLS receiving welfare exceed 43 percent, even in the year of the first birth. The percentage receiving welfare generally falls after the year of the birth so that by two to three years later only one-fifth of women unwed at their first birth receive welfare.

Our analysis of financial well-being also shows that very few married persons, either with or without children, live with their parents, although a substantial minority of unwed parents and single childless persons do, even as late as 1979 when they were about age 25. Married couples tend to be homeowners; we see some evidence that parenthood accelerates the process leading couples to buy a house.

## LOCUS OF CONTROL AND SELF-ESTEEM

To assess how entry into parenthood affects the way young adults view themselves, we analyzed two attitudinal measures that were included in the NLS survey: self-esteem, a measure of liking for oneself, and locus of control, a measure of perceived control over one's fate. We found little evidence that parenthood has a sizeable or sustained effect on either of these outcomes. In both cases, parents differed from nonparents: fathers had lower self-esteem scores than would be predicted on the basis of their other characteristics, and both fathers and mothers scored higher than nonparents in feelings of personal control over their lives. In neither case, however, was there evidence of systematic change for parents around the time of parenthood.

## ACTIVITIES OUTSIDE THE HOME

As a means of summarizing changes in activities of young adults when they become parents, we include here a measure that reflects the number of hours per week devoted to either schooling or employment. This measure allows us to consider the two most common and most important uses of time outside the household for young men and women in the years following high school. Figure 12.1 shows the number of hours per week spent in class or on homework for those enrolled, plus hours per week employed for male and female married parents, and estimates of the expected hours per week in these activities in the absence of parenthood. This figure shows clearly some of the patterns that we observed for other activities. First, fathers spend about 45 hours per week in out-of-home productive activities before the birth and after it. We see no effect of parenthood on this measure. In addition, fathers spend almost exactly as many hours at school or work as we would expect them to spend in the absence of parenthood.

Mothers, on the other hand, work or attend school about 10 hours per week less than fathers, even one year prior to the first birth (35 versus 45 hours), and show a sharp decline in these activities beginning with the onset of pregnancy. By the month the first child is born, mothers have reduced their other activities to about seven hours per week, on average. The impending birth, with accompanying physical changes and the demands of the newborn for care, require virtually all the time of new mothers. By about three months after the birth, some women have resumed their previous activities, so that, on average, mothers spend 15 hours a week or so out of the home, either at a job or at school. Our earlier analyses allow us to explicate this finding; most mothers of children under two years old remain at home full time, but those who return to school or work during this period tend to resume these activities at close to their previous levels.

This analysis of total hours out of the home in productive activities summarizes our main results nicely; we find few effects of parenthood on the

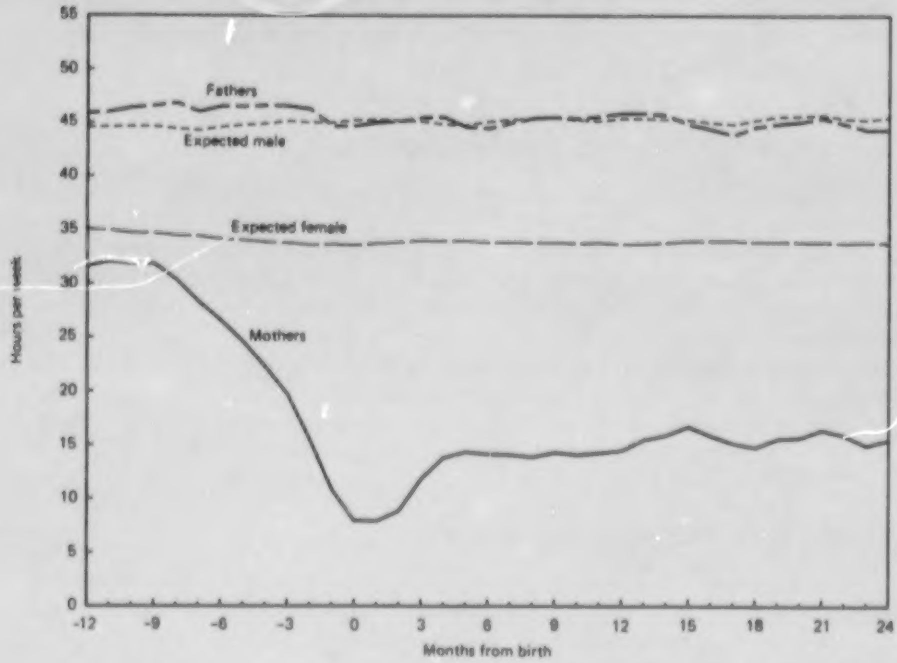

Fig. 12.1—Hours per week in education or employment

activities of fathers, and substantial and sustained effects on mothers, at least in the three years surrounding the birth. Even among young men and women with at least a high school education who had their first child during the decade of the 1970s, the first birth tends to send males and females in very different directions: The women turn toward home and childcare, while the men continue with the activities that they pursued before they became fathers.

## Appendix A

# ESTIMATING THE EFFECTS OF PARENTHOOD FROM LONGITUDINAL DATA

This appendix summarizes the "individual effects" methodology that is used in this study to analyze the effects of parenthood on the activities of young adults. The methodology resembles that used in Haggstrom et al. (1981). It is based on the premise that the effects of parenthood on the activities of a particular individual can be estimated by comparing changes over time in his or her activity measures with estimates of the expected changes for that person based on observations of similar people in a comparison group.

Loosely speaking, by the "effects of parenthood" we mean the extent to which the individual's life is altered as a result of childbirth and childbearing. This definition cannot be made operational, because we cannot hope to study every facet of people's lives. Instead, we must focus on those measurable features that lend themselves to analysis, such as hours worked per week, student status, and career aspirations. Thus, our definition of parenthood effects will be specific to outcome measures of this type.

The definition to be given below implicitly presumes the existence of a rich data base, such as the NLS, that provides measures of the outcome variables at several points in time for both parents and nonparents, as well as a comprehensive set of background measurements for both groups. Let $Y_t$ denote the vector of outcome variables at time $t$ for a particular parent. Then the successive values of $Y_t$ over time trace a "path" that presumably captures some of the essence of the person's life. Relative to the outcome measures contained in $Y_t$, one can think of the effects of parenthood at time $t$ as the difference between the parent's actual vector of outcomes $Y_t$ and the vector of outcomes that would have occurred if the person had not become a parent. Letting this latter vector be denoted by $U_t$ and assuming that this vector could be observed (which it cannot), the hypothetical effects of parenthood on these outcome measures at time $t$ could then be defined as the components of the random vector

$$D_t = Y_t - U_t .$$

Thus, $D_t$ simply measures the deviation of the individual's path from what it would have been if parenthood had not occurred.

Although the vector $U_t$ is unknowable, we can try to estimate it based on the following paradigm. Suppose the parent with vector of outcomes $Y_t$ was known to have a vector of characteristics $X_t$ that could be used to predict $U_t$ if parenthood had not occurred. The vector $X_t$ can be thought of as containing relevant background information (ability, SES, etc.), status measures at some time before pregnancy (say, at $t = 0$), and certain additional information concerning life events that occurred after $t = 0$, such as changes in marital status and educational attainment. The vector $X_t$ could then be used to predict the person's later lifetime path in the absence of parenthood. In theory, we could estimate $U_t$ using the conditional expectation of $U_t$ given $X_t$, and thereby estimate $D_t$ using

$$\Delta_t = Y_t - E(U_t \mid X_t).$$

Assuming that we can evaluate $\Delta_t$ (at least conceptually), we define the *effect* of parenthood at time $t$ for a person with outcome vector $Y_t$ and vector of attributes $X_t$ to be the components of $\Delta_t$. That is, the effects of parenthood are defined as the differences between the "true outcomes" $Y_t$ and the expected values of those outcomes for individuals having the same characteristics who do not become parents.

A schematic representation of the time paths $Y_t$, $U_t$, and $E(U_t \mid X_t)$ is provided in Fig. A.1 for the case that the outcome vector consists of a single measure. The vertical deviation between the curves $Y_t$ and $U_t$ at any time $t$ represents the theoretical effect of parenthood at that time. The effects that we propose to estimate are the vertical deviations between the curves $Y_t$ and $E(U_t \mid X_t)$.

To relate this formulation to looking at "gain scores" $Y_t - Y_0$, we note that $\Delta_t$ can be rewritten in the form

$$\Delta_t = Y_t - Y_0 - E(G_t \mid X_t)$$

where $G_t = U_t - Y_0$ is the hypothetical gain score in the absence of parenthood. Hence, $\Delta_t$ can be regarded as the vector of actual gain scores less the expected gains for similar individuals who do not become parents. As will be seen below, our procedure for estimating the *average* effects of parenthood for any category of parents amounts to taking the mean of the gain scores for those parents less the mean predicted gain based on observations on a comparable group of nonparents.

The above definition of parenthood effects implicitly ignored the fact that the outcome vectors $Y_t$ may contain errors of measurement. To allow for these errors and to provide a basis for treating estimation problems, we now describe a special case of the "individual effects" model that is used in this study.

Consider the case in which the outcome measures $Y_t$ have only a single component measured at times $t = 0, t_1, \ldots, t_k$. Suppose we have observations on a sample of $n$ individuals of whom $n_1$ are parents and $n_2 = n - n_1$ are nonparents in some comparison group. Let $Y_{it}$ be the outcome measure for the *i-th* person at time $t$, and let $X_{it}$ be a $1 \times p$ vector of characteristics measured at time $t$.

We hypothesize that the observations can be represented as follows:

$$\textit{Parents:} \quad Y_{it} = \delta_{it} + X_{it}\beta + e_{it}, \quad i = 1, 2, \ldots, n_1$$

$$\textit{Nonparents:} \quad Y_{it} = X_{it}\beta + e_{it}, \quad i = n_1 + 1, \ldots, n.$$

Here $\beta$ is a $p \times 1$ vector of unknown parameters, $e_{it}$ represents the measurement error in $Y_{it}$, and $\delta_{it}$ is a real parameter representing the deviation of the *i-th* parent from the pattern among nonparents having similar vectors of

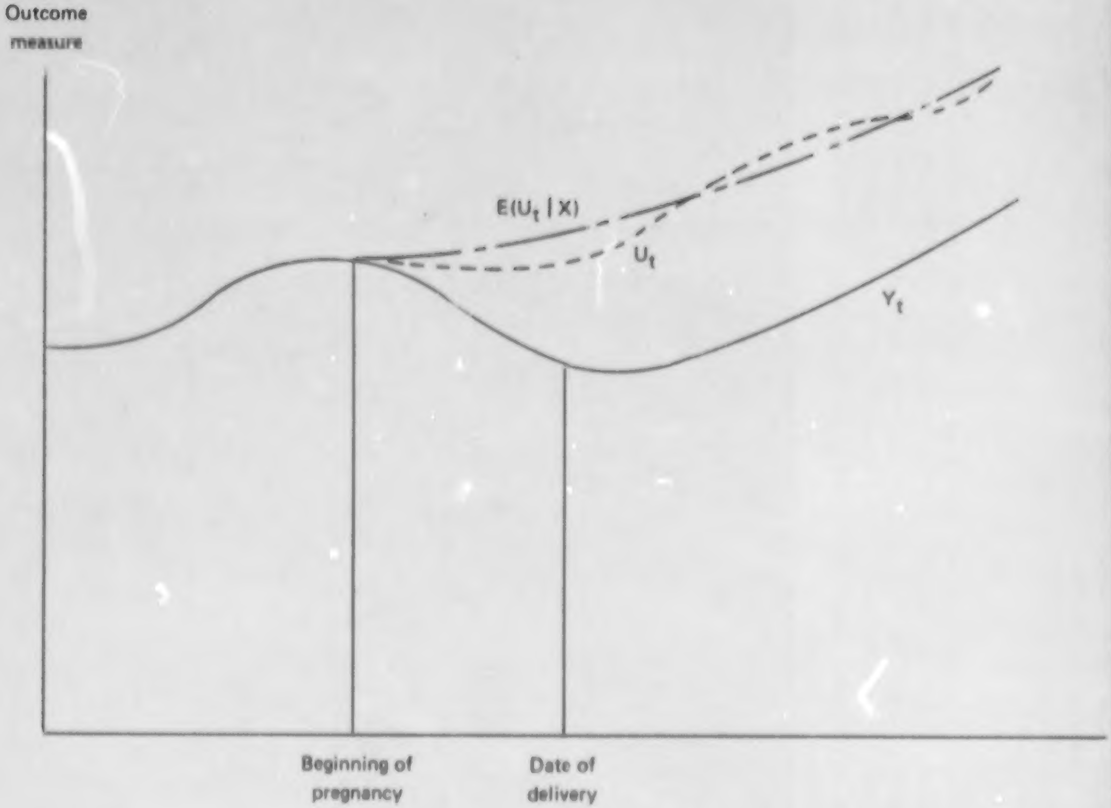

Fig. A.1—Schematic representation of time paths of outcome measures

characteristics. The effect of parenthood for the *i-th* parent at time $t$ is then

$$\Delta_{it} = \delta_{it} - \delta_{i0}.$$

Under standard linear model assumptions about the errors (but allowing for nonzero correlations between errors for the same individual), the best linear unbiased estimator (BLUE) of $\Delta_{it}$ is

$$d_{it} = (Y_{it} - Y_{i0}) - (\hat{y}_{it} - \hat{y}_{i0})$$

where $\hat{y}_{it} = X_{it}b$ and $b$ is the BLUE of $\beta$, which depends on the nonparent observations only. Hence, the estimated individual effect through time $t$ is the change from before pregnancy, $Y_{it} - Y_{i0}$, less the estimated growth during that time period for a nonparent with the same vector of characteristics $X_{it}$.

The estimated average effect among the $n_1$ parents can therefore be calculated from the formula

$$\bar{d}_t = \bar{Y}_t - \bar{Y}_0 - (\bar{y}_t - \bar{y}_0)$$

where $\bar{y}_t = \bar{X}_t b$ is the mean of the "predicted values" $\hat{y}_{it}$ among the parents. Rewriting this formula as

$$\bar{d}_t = (\bar{Y}_t - \bar{y}_t) - (\bar{Y}_0 - \bar{y}_0) = (\bar{Y}_t - \bar{X}_t b) - (\bar{Y}_0 - \bar{X}_0 b),$$

we see that the estimated average effects can be calculated from the means $\bar{Y}_t$ for the parents at various time points $t$ (including $t = 0$), the mean vectors $\bar{X}_t$ at the same values of $t$, and the vector $b$ of estimated regression coefficients. Note that these formulas do not require calculating the individual effects or even the predicted values for the individual parents. Moreover, the formulas are readily amenable to handling the pervasive missing values problem in longitudinal data files.

An important feature of the estimated average effects for a study of this type is that they are well suited for graphical presentation. It suffices to display the time series of means $\bar{Y}_t$ for the parents and the time series of predicted means $\bar{y}_t$ based on the observations for comparable nonparents. The methodology also lends itself well to providing estimated average effects for subgroups of parents, as the many figures in this study illustrate.

To amplify further on the application of the methodology to this study, we begin by considering the possible definitions of the time-scale on which $t$ is determined. Given the nature of the NLS data base, two time-scales are suggested. One is calendar time. For some purposes, this is the most convenient time-scale, in that the survey dates were common to all NLS participants (although their actual response dates varied substantially), and most of the key questions pertained to the participants' activities during the first week of October of the survey year. Thus, the use of a calendar time-scale is attractive. Indeed, this was the scale adopted in the predecessor of this study (Haggstrom et al., 1981).

The problem with using calendar time is that, even if one restricts attention to subgroups of participants who became parents at about the same time, the estimated average effects of parenthood are distorted because, for the main activity measures, the effects of parenthood are most pronounced around the delivery date. Therefore, averaging outcome measures over subsets of parents who became parents at different times tends to misrepresent the changes in activities that typically occur around the delivery date.

The alternative is to rescale time in such a way that, on the transformed scale, parenthood occurs at the same time for all parents. This could be done, for example, by measuring time in months and setting $t = 0$ at some point before pregnancy, say, the twelfth month before the delivery date, so that all participants become parents at $t = 12$. The problem with that approach is that there is no logical choice of the month for which $t = 0$, because the "anticipatory effects" of parenthood might precede conception by several months or even years for some parents. To skirt this problem, we set $t = 0$ for the birth month of the NLS participant's firstborn child. Our examination of the effects of parenthood is mainly restricted to the time interval from $t = -12$ to $t = 24$, i.e., from one year before to two years after the delivery date. Incidentally, only the birth months, not the birth dates, are available on the NLS, so that a division of the time scale into finer units than months was not feasible.

Since the NLS participants were surveyed only three times between the base year survey in spring 1972 and the Fourth Follow-up Survey in late 1979, observations on the dependent variables $Y_t$ are available for only a few time points. For example, consider the case of an NLS participant who first becomes a parent in December 1973. Then the possible times of observation on a measure such as hours worked are at $t_1 = -14$ (October 1972), $t_2 = -2$ (October 1973), . . . , $t_8 = 70$ (October 1979).

In calculating the values of the means $\overline{Y}_t$ for a particular value of $t$, say $t = 10$, we first averaged over all those outcomes for parents who provided observations on the tenth month following their entrance into parenthood. Having calculated these means $m_t$ for all values of $t$, we then "smoothed" the time series of means by replacing each observed mean $m_t$ by the smoothed value

$$\overline{Y}_t = (-2m_{t-3} + 3m_{t-2} + 6m_{t-1} + 7m_t + 6m_{t+1} + 3m_{t+2} - 2m_{t+3})/21 .$$

This amounts to replacing the observed means by the value of the third-degree polynomial fitted to $m_{t-3}$, $m_{t-2}$, $m_{t-1}$, $m_t$, $m_{t+1}$, $m_{t+2}$, and $m_{t+3}$ by ordinary least squares (Anderson, 1971, pp. 46-56).

We now turn to the problem of estimating the predicted means $\bar{y}_t = \overline{X}_t b$ for the same parents if they had remained childless. The idea here is to compare the outcome measure $Y_t$ for a particular parent with characteristic vector $X_t$ with the fitted value $X_t b$ from a prediction equation $y = Xb$ fitted to observations on nonparents, so that the mean $\overline{Y}_t$ could be compared with the analogous fitted mean $\bar{y}_t = \overline{X}_t b$. In deriving the equations, we incorporated a number of characteristics: year of observation, marital status, duration of marriage, educational attainment, high school measures, race/ethnicity, and family background.

The data that were used in fitting the equations were the observations on the 2807 women and 2477 men in the NLS who were classified as being ever-married nonparents in 1979. For each member of this comparison group, we had as many as 8 observations (one for each year) on the variables of interest. Since this gave us a very large number of observations, we elected to eliminate all records for NLS participants whose marriage dates were unknown as well as those for which any of the following independent variables were missing:

race/ethnicity, age, academic ability, rank in senior class, curriculum (academic, vocational, or general), and SES. With the exception of the dichotomous dependent variables (for which logistic regression equations were fitted using discriminant function techniques), linear regression equations were fitted using least squares techniques tailored to the case where some observations are missing. (The CORPAIR technique was used to estimate correlation matrices.) The resulting fitted equations, which are specified in App. B, can be used to predict the time paths that typical parents in the Class of 1972 might have followed if they had remained childless, taking into account the timing of their marriages, their educational progress, their backgrounds, and the dates at which their outcomes were measured.

Just as the individual observations $Y_{it}$ were averaged over the parents to obtain the means $\overline{Y}_t$, the analogous vectors $X_{it}$ of explanatory variables were averaged to obtain the mean vectors $\overline{X}_t$. The latter were then used to calculate the predicted means $\bar{y}_t = \overline{X}_t b$, except when the outcome measures were dichotomous. In the latter case, the analogous predicted means are of the form

$$\bar{y}_t = \sum L(X_{it} b) / n_1$$

where the components of b are the estimated logistic regression coefficients and $L$ is the logistic function defined by

$$L(u) = 1/(1 + e^{-u}).$$

Since this formula for $\bar{y}_t$ is not amenable to handling missing values, we used a formula based on a quadratic approximation to the logistic function around $\bar{u}_t = \overline{X}_t b$, namely,

$$\bar{y}_t \approx p_t + .5 p_t (1 - p_t)(1 - 2p_t) R^2 / S^2 (1 - R^2)$$

where $p_t = L(\bar{u}_t)$. Here, $R^2$ is the coefficient of determination and $S^2$ is the residual mean square determined in calculating the discriminant function estimates of the logistic regression coefficients using the linear model paradigm (Haggstrom, 1983).

As a final step, the predicted means $\bar{y}_t$ were smoothed using the same seven-point, third-degree polynomial smoothing procedure that was used to estimate the outcome means $\overline{Y}_t$ .

For a more complete discussion of the rationale behind the individual effects methodology, comparisons with competing methodologies for handling longitudinal data, and a treatment of some of the statistical issues associated with these models, see App. B of Haggstrom et al. (1981).

# Appendix B

# REGRESSION RESULTS FOR EVER-MARRIED NONPARENTS

This appendix contains tables showing the linear and logistic regression results for the ever-married nonparents on the NLS. Regressions were carried out separately for each sex. These fitted equations were used to predict the time paths that typical parents in the Class of 1972 might have followed if they had remained childless, using as a basis for prediction certain of their other characteristics, including the timing of their marriages, their educational progress, their backgrounds, and the dates at which their outcomes were measured. The procedure for using these equations to predict time paths for parents is described in App. A.

## Table B.1

### LOGISTIC REGRESSION RESULTS FOR EMPLOYMENT STATUS

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 3.832 | | 4.780 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 0.087 | 1.3 | 0.721 | 8.6 |
| Divorced, separated, or widowed | 0.356 | 2.6 | 0.438 | 2.3 |
| Years since first marriage | -0.014 | -0.6 | -0.027 | -0.9 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.108 | -1.6 | -0.305 | -3.8 |
| Two or more years, no BA | -0.602 | -7.2 | -0.611 | -6.5 |
| College graduate | 0.430 | 4.2 | 0.146 | 1.2 |
| High school measures | | | | |
| (Ability measure)/100 | -0.171 | -1.5 | -0.208 | -1.8 |
| (Percentile rank in class)/100 | -0.117 | -1.0 | -1.216 | -9.6 |
| Academic program | -0.286 | -4.6 | -0.344 | -5.0 |
| Vocational program | 0.424 | 6.4 | 0.281 | 3.6 |
| Race/ethnicity | | | | |
| Black | -0.716 | -6.4 | -0.214 | -1.4 |
| Hispanic | -0.504 | -3.5 | -0.684 | -4.4 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.108 | -7.6 | -0.079 | -5.0 |
| Father's occupation (SEI/100) | 0.158 | 1.3 | -0.090 | -0.7 |
| Logarithm of family income | -0.012 | -0.3 | -0.053 | -0.9 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.090 | -1.4 | -0.259 | -3.4 |
| South | -0.238 | -3.9 | -0.029 | -0.4 |
| West | -0.113 | -1.5 | 0.092 | 1.1 |
| Year | | | | |
| 1972 | -1.972 | -14.7 | -1.680 | -10.9 |
| 1973 | -0.878 | -7.1 | -0.733 | -5.1 |
| 1974 | -0.583 | -5.1 | -0.544 | -4.1 |
| 1975 | -0.271 | -2.4 | -0.296 | -2.3 |
| 1976 | 0.015 | 0.2 | -0.064 | -0.6 |
| 1977 | 0.411 | 4.1 | 0.083 | 0.7 |
| 1978 | 0.347 | 3.6 | 0.277 | 2.5 |
| 1979 (omitted) | | | | |
| F | 68.1 | | 66.5 | |
| N | 12017 | | 10453 | |

## Table B.2

### LOGISTIC REGRESSION RESULTS FOR FULL-TIME EMPLOYMENT STATUS

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 6.436 | | 8.204 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 0.740 | 9.2 | 0.598 | 6.1 |
| Divorced, separated, or widowed | 1.012 | 6.1 | 0.485 | 2.0 |
| Years since first marriage | -0.165 | -6.3 | -0.105 | -2.9 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.614 | -7.7 | -0.774 | -8.1 |
| Two or more years, no BA | -1.871 | -18.6 | -1.972 | -17.3 |
| College graduate | -0.323 | -2.7 | -0.360 | -2.5 |
| High school measures | | | | |
| (Ability measure)/100 | -0.850 | -6.2 | -0.662 | -4.6 |
| (Percentile rank in class)/100 | -0.170 | -1.2 | -1.751 | -11.2 |
| Academic program | -0.397 | -5.2 | -0.658 | -7.8 |
| Vocational program | 0.428 | 5.5 | 0.261 | 2.8 |
| Race/ethnicity | | | | |
| Black | -0.444 | -3.0 | -0.191 | -1.0 |
| Hispanic | 0.117 | 0.6 | -0.481 | -2.4 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.053 | -3.0 | -0.111 | -5.6 |
| Father's occupation (SEI/100) | -0.001 | -0.0 | -0.109 | -0.6 |
| Logarithm of family income | -0.097 | -1.7 | -0.048 | -0.7 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.054 | 0.7 | 0.175 | 1.9 |
| South | 0.337 | 4.6 | 0.280 | 3.3 |
| West | -0.387 | -4.3 | 0.007 | 0.1 |
| Year | | | | |
| 1972 | -3.044 | -18.6 | -3.316 | -17.6 |
| 1973 | -2.035 | -13.8 | -2.557 | -14.7 |
| 1974 | -1.462 | -10.6 | -1.940 | -11.9 |
| 1975 | -1.250 | -9.4 | -1.718 | -10.9 |
| 1976 | -0.599 | -5.2 | -0.773 | -5.6 |
| 1977 | -0.273 | -2.3 | -0.300 | -2.1 |
| 1978 | -0.048 | -0.4 | -0.085 | -0.6 |
| 1979 (omitted) | | | | |
| F | 86.8 | | 104.2 | |
| N | 9025 | | 8263 | |

## Table B.3

### REGRESSION RESULTS FOR TOTAL HOURS WORKED PER WEEK

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 57.170 | 27.2 | 56.744 | 21.1 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 2.153 | 7.0 | 1.654 | 4.1 |
| Divorced, separated, or widowed | 4.695 | 7.5 | 1.219 | 1.3 |
| Years since first marriage | -0.579 | -5.9 | -0.368 | -2.5 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -2.239 | -7.4 | -1.540 | -3.9 |
| Two or more years, no BA | -6.629 | -17.4 | -5.916 | -12.6 |
| College graduate | 0.220 | 0.5 | -0.457 | -0.8 |
| High school measures | | | | |
| (Ability measure)/100 | -4.185 | -8.1 | -1.960 | -3.3 |
| (Percentile rank in class)/100 | -1.068 | -2.0 | -5.868 | -9.2 |
| Academic program | -1.306 | -4.5 | -1.957 | -5.7 |
| Vocational program | 1.330 | 4.5 | 1.318 | 3.4 |
| Race/ethnicity | | | | |
| Black | -2.350 | -4.2 | -1.181 | -1.6 |
| Hispanic | -0.764 | -1.1 | -2.034 | -2.5 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.200 | -3.0 | -0.471 | -5.7 |
| Father's occupation (SEI/100) | 0.201 | 0.4 | 1.515 | 2.2 |
| Logarithm of family income | -0.306 | -1.4 | 0.391 | 1.4 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.723 | -2.5 | -0.346 | -0.9 |
| South | 1.130 | 4.1 | 0.346 | 1.0 |
| West | -0.840 | -2.5 | -0.106 | -0.3 |
| Year | | | | |
| 1972 | -12.547 | -20.2 | -13.734 | -17.7 |
| 1973 | -8.795 | -15.7 | -11.029 | -15.4 |
| 1974 | -6.747 | -13.0 | -8.791 | -13.1 |
| 1975 | -6.134 | -12.2 | -7.838 | -12.1 |
| 1976 | -3.329 | -7.6 | -3.858 | -6.8 |
| 1977 | -1.884 | -4.2 | -2.188 | -3.7 |
| 1978 | -0.918 | -2.1 | -1.358 | -2.5 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.22 | | 0.20 | |
| S | 9.60 | | 11.28 | |
| F | 93.2 | | 74.9 | |
| N | 8481 | | 7323 | |

## Table B.4

## REGRESSION RESULTS FOR HOURS EMPLOYED PER WEEK

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 50.878 | 17.0 | 57.225 | 16.0 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 2.000 | 4.4 | 5.746 | 10.1 |
| Divorced, separated, or widowed | 5.237 | 5.7 | 3.240 | 2.5 |
| Years since first marriage | -0.286 | -2.0 | -0.092 | -0.5 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -2.268 | -5.0 | -2.889 | -5.3 |
| Two or more years, no BA | -8.328 | -15.1 | -7.998 | -12.5 |
| College graduate | 3.190 | 4.8 | 0.331 | 0.4 |
| High school measures | | | | |
| (Ability measure)/100 | -3.671 | -5.0 | -2.367 | -3.0 |
| (Percentile rank in class)/100 | -0.596 | -0.8 | -10.292 | -12.0 |
| Academic program | -2.621 | -6.4 | -3.221 | -6.9 |
| Vocational program | 3.484 | 8.0 | 2.538 | 4.7 |
| Race/ethnicity | | | | |
| Black | -6.370 | -8.6 | -2.182 | -2.1 |
| Hispanic | -3.322 | -3.5 | -5.864 | -5.5 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.689 | -7.3 | -0.803 | -7.4 |
| Father's occupation (SEI/100) | 1.011 | 1.2 | 0.728 | 0.8 |
| Logarithm of family income | -0.021 | -0.1 | 0.194 | 0.5 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -1.037 | -2.5 | -1.500 | -2.9 |
| South | -0.553 | -1.4 | -0.012 | -0.0 |
| West | -1.525 | -3.1 | 0.185 | 0.3 |
| Year | | | | |
| 1972 | -18.664 | -21.1 | -18.666 | -17.8 |
| 1973 | -10.620 | -13.1 | -12.121 | -12.5 |
| 1974 | -6.403 | -8.5 | -7.539 | -8.3 |
| 1975 | -4.831 | -6.6 | -6.220 | -7.0 |
| 1976 | -0.911 | -1.4 | -1.347 | -1.7 |
| 1977 | 2.056 | 3.1 | 0.047 | 0.1 |
| 1978 | 2.371 | 3.8 | 1.753 | 2.3 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.24 | | 0.27 | |
| S | 15.97 | | 17.15 | |
| F | 142.2 | | 143.3 | |
| N | 11444 | | 9490 | |

## Table B.5

### LOGISTIC REGRESSION RESULTS FOR WORKING 48 HOURS OR MORE PER WEEK

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | -0.308 | | -0.998 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -0.238 | -1.9 | 0.203 | 2.4 |
| Divorced, separated, or widowed | 1.220 | 4.7 | -0.197 | -1.0 |
| Years since first marriage | -0.018 | -0.4 | 0.027 | 0.9 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.445 | -3.5 | -0.039 | -0.5 |
| Two or more years, no BA | -0.586 | -3.7 | -0.391 | -3.9 |
| College graduate | 0.634 | 3.4 | 0.248 | 2.0 |
| High school measures | | | | |
| (Ability measure)/100 | -0.168 | -0.8 | 0.195 | 1.6 |
| (Percentile rank in class)/100 | -0.313 | -1.4 | -0.558 | -4.1 |
| Academic program | 0.051 | 0.4 | -0.051 | -0.7 |
| Vocational program | -0.187 | -1.5 | 0.168 | 2.1 |
| Race/ethnicity | | | | |
| Black | -0.061 | -0.3 | 0.104 | 0.7 |
| Hispanic | -0.840 | -2.9 | -0.149 | -0.9 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.002 | 0.1 | -0.041 | -2.4 |
| Father's occupation (SEI/100) | -0.037 | -0.2 | 0.417 | 2.8 |
| Logarithm of family income | -0.078 | -0.8 | 0.047 | 0.8 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.156 | -1.3 | -0.223 | -2.7 |
| South | 0.184 | 1.6 | -0.019 | -0.3 |
| West | 0.071 | 0.5 | -0.144 | -1.7 |
| Year | | | | |
| 1972 | -1.781 | -6.9 | -0.891 | -5.4 |
| 1973 | -1.471 | -6.3 | -0.710 | -4.7 |
| 1974 | -1.202 | -5.5 | -0.536 | -3.8 |
| 1975 | -1.445 | -6.9 | -0.608 | -4.4 |
| 1976 | -1.025 | -5.6 | -0.177 | -1.5 |
| 1977 | -0.806 | -4.3 | -0.276 | -2.2 |
| 1978 | -0.607 | -3.4 | -0.215 | -1.8 |
| 1979 (omitted) | | | | |
| F | 12.5 | | 11.0 | |
| N | 8481 | | 7323 | |

## Table B.6

## REGRESSION RESULTS FOR DUNCAN SEI SCORE FOR PRIMARY OCCUPATION

| Variable | Females b | Females t | Males b | Males t |
|---|---|---|---|---|
| Constant | 16.752 | 4.7 | 30.678 | 7.0 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 1.998 | 3.8 | 0.000 | 0.0 |
| Divorced, separated, or widowed | 2.209 | 2.1 | -1.301 | -0.8 |
| Years since first marriage | -0.975 | -5.8 | -0.639 | -2.6 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 0.875 | 1.7 | 0.835 | 1.3 |
| Two or more years, no BA | -0.199 | -0.3 | 3.310 | 4.4 |
| College graduate | 8.890 | 11.6 | 18.549 | 19.3 |
| High school measures | | | | |
| (Ability measure)/100 | 4.547 | 5.2 | 5.138 | 5.4 |
| (Percentile rank in class)/100 | 9.013 | 9.7 | 3.734 | 3.6 |
| Academic program | 0.014 | 0.0 | 4.762 | 8.5 |
| Vocational program | 6.036 | 11.9 | 1.304 | 2.1 |
| Race/ethnicity | | | | |
| Black | -2.194 | -2.3 | -2.512 | -2.1 |
| Hispanic | 5.451 | 4.7 | 3.530 | 2.6 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.079 | 0.7 | 0.185 | 1.4 |
| Father's occupation (SEI/100) | 1.300 | 1.3 | 7.137 | 6.3 |
| Logarithm of family income | 1.695 | 4.5 | -0.721 | -1.6 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 1.046 | 2.1 | 1.129 | 1.8 |
| South | 4.004 | 8.5 | 3.070 | 5.5 |
| West | 0.420 | 0.7 | 0.377 | 0.6 |
| Year | | | | |
| 197[illegible] | -12.371 | -11.7 | -16.148 | -12.8 |
| 1973 | -12.894 | -13.5 | -17.950 | -15.5 |
| 1974 | -10.024 | -11.3 | -16.816 | -15.5 |
| 1975 | -6.289 | -7.3 | -10.851 | -10.3 |
| 1976 | -5.978 | -8.0 | -10.739 | -11.6 |
| 1977 | -4.109 | -5.4 | -7.100 | -7.5 |
| 1978 | -2.365 | -3.2 | -4.890 | -5.5 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.19 | | 0.32 | |
| S | 16.32 | | 18.29 | |
| F | 78.1 | | 136.6 | |
| N | 8486 | | 7298 | |

## Table B.7

### REGRESSION RESULTS FOR HOURLY WAGE RATE FOR PRIMARY OCCUPATION

| Variable | Females b | Females t | Males b | Males t |
|---|---|---|---|---|
| Constant | 2.653 | 5.4 | 3.088 | 4.6 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 0.072 | 1.0 | 0.469 | 4.6 |
| Divorced, separated, or widowed | 0.223 | 1.5 | -0.259 | -1.1 |
| Years since first marriage | -0.049 | -2.1 | 0.008 | 0.2 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.132 | -1.8 | -0.308 | -3.1 |
| Two or more years, no BA | -0.183 | -2.0 | -0.499 | -4.3 |
| College graduate | 0.400 | 3.8 | -0.109 | -0.7 |
| High school measures | | | | |
| (Ability measure)/100 | -0.062 | -0.5 | -0.431 | -2.9 |
| (Percentile rank in class)/100 | 0.619 | 4.8 | -0.187 | -1.2 |
| Academic program | 0.094 | 1.4 | 0.057 | 0.7 |
| Vocational program | 0.244 | 3.5 | 0.044 | 0.5 |
| Race/ethnicity | | | | |
| Black | 0.265 | 2.0 | 0.111 | 0.6 |
| Hispanic | -0.077 | -0.5 | -0.308 | -1.5 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.016 | -1.0 | -0.047 | -2.3 |
| Father's occupation (SEI/100) | 0.322 | 2.4 | -0.174 | -1.0 |
| Logarithm of family income | 0.274 | 5.2 | 0.566 | 8.0 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.080 | 1.2 | -0.174 | -1.8 |
| South | -0.051 | -0.8 | -0.211 | -2.5 |
| West | 0.308 | 3.8 | 0.445 | 4.4 |
| Year | | | | |
| 1972 | -1.910 | -13.0 | -2.308 | -11.9 |
| 1973 | -1.689 | -12.8 | -1.660 | -9.3 |
| 1974 | -1.356 | -11.0 | -1.389 | -8.3 |
| 1975 | -1.098 | -9.2 | 1.262 | -7.8 |
| 1976 | -0.809 | -7.8 | -0.779 | -5.5 |
| 1977 | -0.486 | -4.6 | -0.661 | -4.5 |
| 1978 | -0.252 | -2.5 | -0.471 | -3.4 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.10 | | 0.09 | |
| S | 2.27 | | 2.85 | |
| F | 38.4 | | 29.1 | |
| N | 8534 | | 7480 | |

## Table B.8

## REGRESSION RESULTS FOR TOTAL WAGES PER WEEK

| Variable | Females |  | Males |  |
|---|---|---|---|---|
|  | b | t | b | t |
| Constant | 185.770 | 9.8 | 185.490 | 6.5 |
| Marital status |  |  |  |  |
| Single (omitted) |  |  |  |  |
| Married | 9.607 | 3.5 | 24.906 | 5.8 |
| Divorced, separated, or widowed | 25.456 | 4.5 | -8.576 | -0.8 |
| Years since first marriage | -5.292 | -5.9 | -0.814 | -0.5 |
| Postsecondary education |  |  |  |  |
| None (omitted) |  |  |  |  |
| Less than two years | -8.788 | -3.2 | -19.188 | -4.7 |
| Two or more years, no BA | -26.418 | -7.7 | -43.881 | -8.9 |
| College graduate | 15.470 | 3.8 | -10.022 | -1.6 |
| High school measures |  |  |  |  |
| (Ability measure)/100 | -17.567 | -3.7 | -19.692 | -3.2 |
| (Percentile rank in class)/100 | 24.013 | 4.9 | -30.582 | -4.5 |
| Academic program | -0.572 | -0.2 | -10.718 | -2.9 |
| Vocational program | 16.064 | 5.9 | 9.151 | 2.3 |
| Race/ethnicity |  |  |  |  |
| Black | 1.578 | 0.3 | -4.699 | -0.6 |
| Hispanic | -6.833 | -1.1 | -24.026 | -2.8 |
| Other (omitted) |  |  |  |  |
| Family background |  |  |  |  |
| Parents' education | -1.468 | -2.4 | -4.643 | -5.4 |
| Father's occupation (SEI/100) | 11.664 | 2.2 | -2.651 | -0.4 |
| Logarithm of family income | 8.209 | 4.1 | 26.269 | 8.7 |
| Region |  |  |  |  |
| North Central (omitted) |  |  |  |  |
| Northeast | -3.649 | -1.4 | -7.497 | -1.8 |
| South | 2.350 | 0.9 | -6.381 | -1.8 |
| West | 6.017 | 1.9 | 13.391 | 3.1 |
| Year |  |  |  |  |
| 1972 | -124.360 | -22.1 | -157.860 | -19.3 |
| 1973 | -103.330 | -20.3 | -124.540 | -16.5 |
| 1974 | -82.514 | -17.5 | -105.850 | -15.0 |
| 1975 | -71.463 | -15.6 | -90.264 | -13.2 |
| 1976 | -47.394 | -11.9 | -54.548 | -9.1 |
| 1977 | -28.825 | -7.1 | -39.830 | -6.4 |
| 1978 | -14.095 | -3.6 | -28.068 | -4.8 |
| 1979 (omitted) |  |  |  |  |
| $R^2$ | 0.20 |  | 0.20 |  |
| S | 85.58 |  | 116.70 |  |
| F | 79.8 |  | 71.3 |  |
| N | 8170 |  | 7028 |  |

## Table B.9

## REGRESSION RESULTS FOR THE CAREER EXPECTATION MEASURE

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 12.806 | 3.9 | -6.081 | -1.4 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -3.049 | -6.2 | -2.114 | -2.9 |
| Divorced, separated, or widowed | 0.657 | 0.7 | -1.462 | -1.1 |
| Years since first marriage | 0.651 | 4.3 | 0.529 | 2.3 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 6.136 | 13.3 | 8.383 | 13.5 |
| Two or more years, no BA | 13.099 | 22.1 | 14.100 | 18.2 |
| College graduate | 17.069 | 22.9 | 21.543 | 21.3 |
| High school measures | | | | |
| (Ability measure)/100 | 7.637 | 9.4 | 8.832 | 8.9 |
| (Percentile rank in class)/100 | -0.183 | -0.2 | 8.524 | 8.0 |
| Academic program | 3.069 | 6.7 | 4.666 | 8.0 |
| Vocational program | -2.059 | -4.3 | -2.563 | -3.9 |
| Race/ethnicity | | | | |
| Black | 5.703 | 7.0 | 5.181 | 4.1 |
| Hispanic | 2.154 | 2.1 | 6.526 | 5.0 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.131 | 1.2 | 0.871 | 6.5 |
| Father's occupation (SEI/100) | 0.704 | 0.8 | 7.099 | 6.1 |
| Logarithm of family income | 0.473 | 1.3 | -0.096 | -0.2 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.009 | 0.0 | -0.751 | -1.2 |
| South | 0.288 | 0.6 | 0.184 | 0.3 |
| West | 1.718 | 3.2 | -0.321 | -0.5 |
| Year | | | | |
| 1973 | 8.723 | 11.0 | 11.215 | 10.3 |
| 1974 | 6.277 | 8.7 | 8.760 | 8.8 |
| 1976 | 3.752 | 6.5 | 3.681 | 4.6 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.28 | | 0.38 | |
| S | 13.29 | | 16.53 | |
| F | 117.7 | | 167.8 | |
| N | 6401 | | 5671 | |

## Table B.10

## LOGISTIC REGRESSION RESULTS FOR THE PROFESSIONAL EXPECTATION MEASURE

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | -4.779 | | -5.153 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -0.565 | -6.5 | -0.301 | -2.9 |
| Divorced, separated, or widowed | -0.031 | -0.2 | -0.083 | -0.4 |
| Years since first marriage | 0.121 | 4.5 | 0.046 | 1.3 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 1.024 | 12.5 | 0.770 | 8.4 |
| Two or more years, no BA | 2.291 | 21.8 | 1.447 | 12.7 |
| College graduate | 3.060 | 23.2 | 2.215 | 14.9 |
| High school measures | | | | |
| (Ability measure)/100 | 0.841 | 5.8 | 1.006 | 6.9 |
| (Percentile rank in class)/100 | -0.095 | -0.6 | 1.063 | 6.8 |
| Academic program | 0.560 | 5.9 | 0.422 | 5.0 |
| Vocational program | -0.425 | -5.0 | -0.480 | -4.9 |
| Race/ethnicity | | | | |
| Black | 0.598 | 4.1 | 0.351 | 1.9 |
| Hispanic | 0.111 | 0.6 | 0.578 | 3.0 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.024 | 1.3 | 0.145 | 7.3 |
| Father's occupation (SEI/100) | -0.105 | -0.6 | 0.467 | 2.7 |
| Logarithm of family income | -0.002 | -0.0 | -0.214 | -3.1 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.115 | -1.4 | -0.112 | -1.2 |
| South | -0.030 | -0.4 | -0.096 | -1.1 |
| West | 0.186 | 1.9 | -0.056 | -0.6 |
| Year | | | | |
| 1973 | 1.736 | 12.4 | 1.456 | 9.1 |
| 1974 | 1.233 | 9.7 | 1.133 | 7.7 |
| 1976 | 0.719 | 7.0 | 0.474 | 4.0 |
| 1979 (omitted) | | | | |
| F | 102.5 | | 96.9 | |
| N | 6401 | | 5671 | |

## Table B.11

## LOGISTIC REGRESSION RESULTS FOR THE HOMEMAKER EXPECTATION MEASURE

| Variable | Females | |
|---|---|---|
| | b | t |
| Constant | -0.204 | |
| Marital status | | |
| Single (omitted) | | |
| Married | 0.821 | 8.7 |
| Divorced, separated, or widowed | -0.212 | -1.2 |
| Years since first marriage | -0.067 | -2.3 |
| Postsecondary education | | |
| None (omitted) | | |
| Less than two years | -1.196 | -13.5 |
| Two or more years, no BA | -1.589 | -13.9 |
| College graduate | -1.736 | -12.1 |
| High school measures | | |
| (Ability measure)/100 | -0.666 | -4.2 |
| (Percentile rank in class)/100 | -0.109 | -0.7 |
| Academic program | -0.072 | -0.8 |
| Vocational program | 0.069 | 0.7 |
| Race/ethnicity | | |
| Black | -0.765 | -4.8 |
| Hispanic | -0.201 | -1.0 |
| Other (omitted) | | |
| Family background | | |
| Parents' education | -0.009 | -0.5 |
| Father's occupation (SEI/100) | 0.274 | 1.6 |
| Logarithm of family income | 0.120 | 1.7 |
| Region | | |
| North Central (omitted) | | |
| Northeast | 0.046 | 0.5 |
| South | -0.379 | -4.4 |
| West | -0.160 | -1.5 |
| Year | | |
| 1973 | 0.034 | 0.2 |
| 1974 | 0.182 | 1.3 |
| 1976 | 0.137 | 1.2 |
| 1979 (omitted) | | |
| F | 35.2 | |
| N | 6401 | |

## Table B.12

## REGRESSION RESULTS FOR THE WORK ORIENTATION MEASURE

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 2.561 | 31.8 | 2.608 | 32.0 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -0.022 | -1.7 | 0.038 | 2.6 |
| Divorced, separated, or widowed | 0.108 | 4.5 | 0.042 | 1.5 |
| Years since first marriage | -0.009 | -2.2 | -0.005 | -1.0 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 0.122 | 9.9 | 0.038 | 3.0 |
| Two or more years, no BA | 0.151 | 9.6 | 0.073 | 4.8 |
| College graduate | 0.208 | 10.7 | 0.095 | 4.8 |
| High school measures | | | | |
| (Ability measure)/100 | -0.166 | -8.4 | -0.192 | -10.7 |
| (Percentile rank in class)/100 | -0.008 | -0.4 | -0.036 | -1.8 |
| Academic program | 0.003 | 0.3 | 0.002 | 0.2 |
| Vocational program | 0.036 | 3.1 | 0.025 | 2.1 |
| Race/ethnicity | | | | |
| Black | 0.077 | 3.9 | 0.023 | 1.0 |
| Hispanic | 0.087 | 3.5 | 0.047 | 2.0 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.004 | -1.6 | -0.013 | -5.1 |
| Father's occupation (SEI/100) | -0.033 | -1.5 | 0.011 | 0.5 |
| Logarithm of family income | 0.012 | 1.4 | 0.044 | 5.1 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.013 | -1.1 | 0.021 | 1.8 |
| South | 0.042 | 3.9 | 0.034 | 3.2 |
| West | -0.004 | -0.3 | -0.033 | -2.7 |
| Year | | | | |
| 1972 | 0.172 | 7.2 | 0.134 | 5.5 |
| 1973 | 0.006 | 0.3 | 0.003 | 0.1 |
| 1974 | -0.002 | -0.1 | -0.011 | -0.6 |
| 1976 | -0.020 | -1.2 | 0.001 | 0.0 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.06 | | 0.06 | |
| S | 0.37 | | 0.34 | |
| F | 23.3 | | 21.4 | |
| N | 8357 | | 7255 | |

## Table B.13

### LOGISTIC REGRESSION RESULTS FOR HOMEMAKER STATUS

| Variable | Some Activity | | Main activity | |
|---|---|---|---|---|
| | b | t | b | t |
| Constant | -0.248 | | -2.064 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 4.305 | 51.6 | 2.267 | 20.3 |
| Divorced, separated, or widowed | 0.313 | 1.8 | -0.043 | -0.2 |
| Years since first marriage | 0.038 | 1.4 | 0.176 | 4.9 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.478 | -5.7 | -0.802 | -7.1 |
| Two or more years, no BA | -1.150 | -11.3 | -1.036 | -7.6 |
| College graduate | -1.891 | -15.3 | -0.971 | -5.9 |
| High school measures | | | | |
| (Ability measure)/100 | 0.173 | 1.3 | -0.252 | -1.4 |
| (Percentile rank in class)/100 | 0.101 | 0.7 | -0.833 | -4.3 |
| Academic program | 0.055 | 0.7 | 0.223 | 2.2 |
| Vocational program | 0.012 | 0.1 | -0.364 | -3.4 |
| Race/ethnicity | | | | |
| Black | -0.884 | -6.5 | -0.100 | -0.5 |
| Hispanic | -0.685 | -3.9 | 0.206 | 0.9 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.014 | 0.8 | 0.024 | 1.0 |
| Father's occupation (SEI/100) | -0.186 | -1.2 | 0.119 | 0.6 |
| Logarithm of family income | -0.209 | -3.5 | -0.155 | -2.0 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.324 | -4.2 | 0.012 | 0.1 |
| South | -0.110 | -1.5 | -0.062 | -0.6 |
| West | -0.216 | -2.4 | 0.262 | 2.2 |
| Year | | | | |
| 1972 | -1.157 | -7.1 | -0.151 | -0.7 |
| 1973 | -0.724 | -4.8 | 0.382 | 1.9 |
| 1974 | -0.926 | -6.6 | 0.943 | 5.1 |
| 1975 | -0.683 | -5.0 | 0.659 | 3.6 |
| 1976 | -0.294 | -2.4 | 0.941 | 5.8 |
| 1977 | -0.589 | -4.8 | 0.156 | 1.0 |
| 1978 | -0.608 | -5.2 | 0.156 | 1.0 |
| 1979 (omitted) | | | | |
| F | 276.7 | | 51.5 | |
| N | 9954 | | 11702 | |

## Table B.14

## LOGISTIC REGRESSION RESULTS FOR STUDENT STATUS

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | -8.939 | | -8.803 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -1.426 | -19.9 | -0.733 | -9.2 |
| Divorced, separated, or widowed | -1.250 | -8.5 | -0.798 | -4.4 |
| Years since first marriage | 0.205 | 8.9 | 0.155 | 5.5 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 2.053 | 28.4 | 2.266 | 29.7 |
| Two or more years, no BA | 3.139 | 35.7 | 3.042 | 34.1 |
| College graduate | 1.076 | 10.1 | 1.387 | 12.3 |
| High school measures | | | | |
| (Ability measure)/100 | 0.988 | 8.5 | 0.669 | 6.0 |
| (Percentile rank in class)/100 | 0.810 | 6.6 | 1.841 | 15.4 |
| Academic program | 0.575 | 8.8 | 0.654 | 10.1 |
| Vocational program | -0.462 | -6.6 | -0.391 | -5.2 |
| Race/ethnicity | | | | |
| Black | 0.927 | 7.9 | 0.066 | 0.5 |
| Hispanic | 0.333 | 2.2 | 0.613 | 4.1 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.092 | 6.1 | 0.090 | 6.0 |
| Father's occupation (SEI/100) | 0.134 | 1.0 | 0.335 | 2.6 |
| Logarithm of family income | 0.134 | 2.6 | 0.139 | 2.6 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.083 | 1.2 | -0.062 | -0.9 |
| South | 0.168 | 2.6 | -0.006 | -0.1 |
| West | 0.366 | 4.7 | -0.123 | -1.6 |
| Year | | | | |
| 1972 | 4.713 | 33.5 | 4.389 | 30.0 |
| 1973 | 2.599 | 20.1 | 2.674 | 19.8 |
| 1974 | 1.859 | 15.5 | 1.980 | 15.7 |
| 1975 | 1.561 | 13.3 | 1.799 | 14.6 |
| 1976 | 0.572 | 5.5 | 0.782 | 7.1 |
| 1977 | -0.006 | -0.1 | 0.423 | 3.9 |
| 1978 | 0.038 | 0.4 | 0.224 | 2.1 |
| 1979 (omitted) | | | | |
| F | 327.8 | | 283.1 | |
| N | 12741 | | 11231 | |

## Table B.15

### REGRESSION RESULTS FOR NUMBER OF HOURS IN EDUCATIONAL ACTIVITIES

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | -32.086 | -14.2 | -32.268 | -12.5 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -7.138 | -21.0 | -4.385 | -10.6 |
| Divorced, separated, or widowed | -6.902 | -9.9 | -4.383 | -4.7 |
| Years since first marriage | 0.979 | 9.0 | 0.959 | 6.6 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 7.553 | 22.0 | 9.373 | 23.6 |
| Two or more years, no BA | 15.164 | 36.4 | 15.277 | 33.0 |
| College graduate | 2.936 | 5.8 | 4.591 | 7.8 |
| High school measures | | | | |
| (Ability measure)/100 | 6.415 | 11.6 | 4.489 | 7.7 |
| (Percentile rank in class)/100 | 4.110 | 7.0 | 10.682 | 17.1 |
| Academic program | 2.869 | 9.2 | 3.871 | 11.5 |
| Vocational program | -2.502 | -7.6 | -2.111 | -5.4 |
| Race/ethnicity | | | | |
| Black | 4.559 | 8.2 | 0.802 | 1.1 |
| Hispanic | 1.677 | 2.4 | 4.377 | 5.7 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.535 | 7.5 | 0.579 | 7.4 |
| Father's occupation (SEI/100) | 0.265 | 0.4 | 1.272 | 1.9 |
| Logarithm of family income | 0.763 | 3.2 | 0.648 | 2.4 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.141 | -0.4 | -0.736 | -2.0 |
| South | 0.242 | 0.8 | -0.456 | -1.4 |
| West | 1.212 | 3.3 | -0.933 | -2.4 |
| Year | | | | |
| 1972 | 23.729 | 35.5 | 24.000 | 31.6 |
| 1973 | 14.740 | 24.1 | 16.150 | 22.9 |
| 1974 | 10.486 | 18.4 | 11.690 | 17.8 |
| 1975 | 8.882 | 16.0 | 10.865 | 17.0 |
| 1976 | 3.141 | 6.4 | 4.809 | 8.4 |
| 1977 | 0.796 | 1.6 | 3.017 | 5.3 |
| 1978 | 0.636 | 1.3 | 1.433 | 2.6 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.45 | | 0.43 | |
| S | 12.59 | | 13.35 | |
| F | 401.2 | | 328.1 | |
| N | 12445 | | 10912 | |

## Table B.16

### REGRESSION RESULTS FOR EXPECTED YEARS OF EDUCATIONAL ATTAINMENT

| Variable | Females b | Females t | Males b | Males t |
|---|---|---|---|---|
| Constant | 8.248 | 25.4 | 8.111 | 21.1 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -0.399 | -7.7 | -0.143 | -2.1 |
| Divorced, separated, or widowed | 0.010 | 0.1 | -0.013 | -0.1 |
| Years since first marriage | 0.045 | 2.7 | 0.00[illegible] | 0.4 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 1.379 | 27.7 | 1.422 | [illegible]4.1 |
| Two or more years, no BA | 2.741 | 43.4 | 2.470 | 3[illegible].3 |
| College graduate | 4.306 | 54.6 | 4.166 | 4[illegible].7 |
| High school measures | | | | |
| (Ability measure)/100 | 1.164 | 14.7 | 0.965 | 11.[illegible] |
| (Percentile rank in class)/100 | 0.261 | 3.1 | 1.030 | 11.3 |
| Academic program | 0.560 | 12.5 | 0.685 | 13.8 |
| Vocational program | -0.369 | -7.8 | -0.242 | -4.2 |
| Race/ethnicity | | | | |
| Black | 1.347 | 16.9 | 0.788 | 7.2 |
| Hispanic | 0.617 | 6.2 | 0.730 | 6.5 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.083 | 8.0 | 0.073 | 6.3 |
| Father's occupation (SEI/100) | 0.130 | 1.5 | 0.599 | 5.9 |
| Logarithm of family income | 0.050 | 1.4 | 0.092 | 2.3 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.056 | 1.2 | -0.031 | -0.6 |
| South | 0.181 | 4.2 | 0.019 | 0.4 |
| West | 0.204 | 3.8 | -0.013 | -0.2 |
| Year | | | | |
| 1972 | 1.899 | 19.8 | 2.198 | 19.1 |
| 1973 | 0.928 | 10.8 | 1.191 | 11.4 |
| 1974 | 0.665 | 8.5 | 0.879 | 9.1 |
| 1976 | 0.449 | 7.1 | 0.526 | 6.8 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.56 | | 0.55 | |
| S | 1.46 | | 1.58 | |
| F | 469.8 | | 392.7 | |
| N | 8010 | | 6956 | |

## Table B.17

## LOGISTIC REGRESSION RESULTS FOR MARITAL DISRUPTION

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | -7.806 | | -2.791 | |
| Marital status | | | | |
| Years since first marriage | 0.649 | 18.1 | 0.710 | 14.9 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 0.465 | 3.1 | 0.283 | 1.4 |
| Two or more years, no BA | 0.703 | 3.8 | 0.045 | 0.2 |
| College graduate | 0.124 | 0.6 | -0.172 | -0.6 |
| High school measures | | | | |
| (Ability measure)/100 | 1.032 | 3.9 | 0.417 | 1.3 |
| (Percentile rank in class)/100 | -1.460 | -5.3 | -1.356 | -4.0 |
| Academic program | -0.400 | -2.6 | 0.103 | 0.6 |
| Vocational program | -0.137 | -0.9 | -0.175 | -0.9 |
| Race/ethnicity | | | | |
| Black | 1.019 | 3.7 | 0.101 | 0.3 |
| Hispanic | -0.036 | -0.1 | -0.113 | -0.3 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.027 | 0.8 | -0.071 | -1.6 |
| Father's occupation (SEI/100) | -0.799 | -2.6 | 1.117 | 3.0 |
| Logarithm of family income | 0.199 | 1.7 | -0.153 | -1.0 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.064 | 0.4 | -0.472 | -2.3 |
| South | 0.143 | 1.0 | -0.028 | -0.2 |
| West | 0.170 | 0.9 | 0.187 | 0.9 |
| Year | | | | |
| 1973 | 0.804 | 3.1 | 0.102 | 0.2 |
| 1974 | 0.779 | 3.7 | 0.138 | 0.5 |
| 1976 | 0.769 | 5.3 | 0.443 | 2.5 |
| 1979 (omitted) | | | | |
| F | 27.9 | | 18.2 | |
| N | 3467 | | 2562 | |

## Table B.18

## REGRESSION RESULTS FOR NUMBER OF ORGANIZATIONAL MEMBERSHIPS

| Variable | Females | | Males | |
|---|---|---|---|---|
| | b | t | b | t |
| Constant | 1.473 | 3.1 | 2.726 | 4.6 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -0.428 | -6.2 | -0.511 | -5.8 |
| Divorced, separated, or widowed | -0.439 | -3.4 | -0.554 | -3.0 |
| Years since first marriage | 0.016 | 0.8 | 0.063 | 2.2 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 0.026 | 0.4 | 0.206 | 2.4 |
| Two or more years, no BA | 0.746 | 9.1 | 0.873 | 8.8 |
| College graduate | 1.229 | 12.5 | 1.255 | 10.0 |
| High school measures | | | | |
| (Ability measure)/100 | -0.042 | -0.4 | -0.177 | -1.3 |
| (Percentile rank in class)/100 | 0.244 | 1.9 | -0.013 | -0.1 |
| Academic program | 0.138 | 2.1 | 0.356 | 4.5 |
| Vocational program | -0.138 | -2.0 | 0.068 | 0.8 |
| Race/ethnicity | | | | |
| Black | 0.658 | 5.5 | 0.739 | 4.3 |
| Hispanic | -0.299 | -2.0 | -0.593 | -3.3 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.050 | 3.2 | 0.032 | 1.8 |
| Father's occupation (SEI/100) | -0.021 | -0.2 | 0.086 | 0.5 |
| Logarithm of family income | -0.058 | -1.1 | -0.103 | -1.6 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.160 | -2.3 | -0.322 | -3.7 |
| South | 0.067 | 1.0 | -0.046 | -0.6 |
| West | -0.108 | -1.4 | -0.286 | -3.1 |
| Year | | | | |
| 1974 | -0.224 | -3.4 | -0.327 | -4.0 |
| 1976 | -0.161 | -2.6 | -0.191 | -2.5 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.12 | | 0.09 | |
| S | 1.66 | | 1.89 | |
| F | 30.3 | | 19.2 | |
| N | 4672 | | 4050 | |

## Table B.19

## REGRESSION RESULTS FOR NUMBER OF ACTIVE ORGANIZATIONAL MEMBERSHIPS

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 0.642 | 1.7 | 1.619 | 3.6 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -0.326 | -6.0 | -0.433 | -6.4 |
| Divorced, separated, or widowed | -0.383 | -3.7 | -0.456 | -3.2 |
| Years since first marriage | 0.016 | 1.0 | 0.043 | 2.0 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.037 | -0.7 | 0.134 | 2.1 |
| Two or more years, no BA | 0.453 | 7.0 | 0.629 | 8.2 |
| College graduate | 0.706 | 9.1 | 0.767 | 7.9 |
| High school measures | | | | |
| (Ability measure)/100 | 0.091 | 1.0 | 0.083 | 0.8 |
| (Percentile rank in class)/100 | 0.090 | 0.9 | -0.040 | -0.4 |
| Academic program | 0.117 | 2.2 | 0.247 | 4.1 |
| Vocational program | -0.091 | -1.6 | 0.034 | 0.5 |
| Race/ethnicity | | | | |
| Black | 0.367 | 3.9 | 0.413 | 3.1 |
| Hispanic | -0.263 | -2.2 | -0.461 | -3.4 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.024 | 2.0 | 0.021 | 1.5 |
| Father's occupation (SEI/100) | 0.056 | 0.5 | 0.036 | 0.3 |
| Logarithm of family income | -0.019 | -0.5 | -0.100 | -2.0 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.119 | -2.2 | -0.221 | -3.3 |
| South | 0.063 | 1.2 | 0.016 | 0.3 |
| West | -0.088 | -1.4 | -0.165 | -2.3 |
| Year | | | | |
| 1974 | -0.036 | -0.7 | -0.122 | -1.9 |
| 1976 | -0.089 | -1.8 | -0.069 | -1.2 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.08 | | 0.08 | |
| S | 1.32 | | 1.45 | |
| F | 21.1 | | 16.4 | |
| N | 4672 | | 4050 | |

## Table B.20

## LOGISTIC REGRESSION RESULTS FOR VOTING BEHAVIOR

| Variable | Females |  | Males |  |
|---|---|---|---|---|
|  | b | t | b | t |
| Constant | -2.143 |  | -1.310 |  |
| Marital status |  |  |  |  |
| Single (omitted) |  |  |  |  |
| Married | 0.102 | 1.1 | -0.094 | -0.9 |
| Divorced, separated, or widowed | -0.273 | -1.6 | -0.393 | -1.8 |
| Years since first marriage | -0.074 | -2.9 | -0.020 | -0.6 |
| Postsecondary education |  |  |  |  |
| None (omitted) |  |  |  |  |
| Less than two years | -0.056 | -0.6 | 0.206 | 2.1 |
| Two or more years, no BA | 0.552 | 5.1 | 0.633 | 5.4 |
| College graduate | 0.745 | 5.7 | 0.792 | 5.4 |
| High school measures |  |  |  |  |
| (Ability measure)/100 | 0.688 | 4.3 | 0.385 | 2.4 |
| (Percentile rank in class)/100 | 0.332 | 2.0 | 0.513 | 3.0 |
| Academic program | -0.147 | -1.6 | 0.200 | 2.2 |
| Vocational program | -0.325 | -3.5 | 0.258 | -2.4 |
| Race/ethnicity |  |  |  |  |
| Black | -0.174 | -1.1 | -0.359 | -1.8 |
| Hispanic | -0.567 | -2.8 | -0.222 | -1.1 |
| Other (omitted) |  |  |  |  |
| Family background |  |  |  |  |
| Parents' education | 0.008 | 0.4 | 0.008 | 0.4 |
| Father's occupation (SEI/100) | 0.427 | 2.4 | 0.296 | 1.6 |
| Logarithm of family income | 0.172 | 2.5 | 0.103 | 1.4 |
| Region |  |  |  |  |
| North Central (omitted) |  |  |  |  |
| Northeast | -0.615 | -6.7 | -0.456 | -4.5 |
| South | -0.247 | -2.9 | -0.157 | -1.7 |
| West | -0.198 | -1.9 | -0.090 | -0.8 |
| Year |  |  |  |  |
| 1974 | -0.467 | -5.3 | -0.337 | -3.5 |
| 1976 | -0.157 | -1.9 | -0.060 | -0.7 |
| 1979 (omitted) |  |  |  |  |
| F | 23.4 |  | 17.8 |  |
| N | 4967 |  | 4338 |  |

## Table B.21

## LOGISTIC REGRESSION RESULTS FOR RESIDENTIAL DEPENDENCY STATUS

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 3.905 | | 3.824 | |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -3.409 | -34.7 | -2.846 | -25.6 |
| Divorced, separated, or widowed | -1.534 | -8.6 | -1.620 | -7.6 |
| Years since first marriage | -0.101 | -3.3 | -0.090 | -2.5 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | -0.166 | -1.8 | -0.030 | -0.3 |
| Two or more years, no BA | -0.809 | -6.8 | -0.441 | -3.7 |
| College graduate | 0.007 | 0.0 | 0.153 | 1.0 |
| High school measures | | | | |
| (Ability measure)/100 | -0.926 | -5.7 | -0.456 | -3.0 |
| (Percentile rank in class)/100 | -0.605 | -3.5 | -0.786 | -4.8 |
| Academic program | -0.292 | -3.2 | -0.418 | -4.7 |
| Vocational program | -0.073 | -0.8 | -0.045 | -0.4 |
| Race/ethnicity | | | | |
| Black | 0.307 | 1.9 | -0.294 | -1.5 |
| Hispanic | 0.716 | 3.5 | -0.122 | -0.6 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.125 | -5.9 | -0.112 | -5.4 |
| Father's occupation (SEI/100) | 0.071 | 0.4 | -0.275 | -1.5 |
| Logarithm of family income | 0.070 | 1.0 | -0.072 | -1.0 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.567 | 6.1 | 0.388 | 3.9 |
| South | 0.081 | 0.9 | 0.212 | 2.4 |
| West | -0.081 | -0.7 | 0.078 | 0.7 |
| Year | | | | |
| 1973 | 0.008 | 0.0 | 0.356 | 2.1 |
| 1974 | -0.305 | -2.1 | -0.037 | -0.2 |
| 1976 | -0.136 | -1.2 | -0.177 | -1.4 |
| 1979 (omitted) | | | | |
| F | 146.8 | | 109.6 | |
| N | 6538 | | 5697 | |

## Table B.22

### REGRESSION RESULTS FOR THE SELF-ESTEEM MEASURE

| Variable | Females | | Males | |
|---|---|---|---|---|
| | b | t | b | t |
| Constant | 3.363 | 27.3 | 3.608 | 27.8 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 0.054 | 2.7 | 0.063 | 2.7 |
| Divorced, separated, or widowed | 0.111 | 3.0 | -0.026 | -0.6 |
| Years since first marriage | -0.007 | -1.1 | 0.009 | 1.1 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 0.054 | 2.9 | -0.022 | -1.1 |
| Two or more years, no BA | 0.138 | 5.8 | 0.059 | 2.4 |
| College graduate | 0.160 | 5.3 | 0.082 | 2.6 |
| High school measures | | | | |
| (Ability measure)/100 | 0.092 | 3.0 | 0.089 | 3.1 |
| (Percentile rank in class)/100 | 0.016 | 0.5 | 0.015 | 0.5 |
| Academic program | 0.034 | 2.0 | 0.032 | 1.9 |
| Vocational program | 0.002 | 0.1 | 0.041 | 2.1 |
| Race/ethnicity | | | | |
| Black | 0.149 | 4.9 | 0.154 | 4.2 |
| Hispanic | 0.059 | 1.6 | 0.125 | 3.3 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | 0.009 | 2.4 | 0.007 | 1.8 |
| Father's occupation (SEI/100) | 0.031 | 0.9 | -0.051 | -1.5 |
| Logarithm of family income | 0.049 | 3.7 | 0.043 | 3.1 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.012 | -0.7 | -0.001 | -0.1 |
| South | 0.013 | 0.8 | 0.017 | 1.0 |
| West | 0.045 | 2.2 | 0.063 | 3.2 |
| Year | | | | |
| 1972 | -0.289 | -7.9 | -0.333 | -8.6 |
| 1973 | -0.099 | -3.0 | -0.154 | -4.4 |
| 1974 | -0.051 | -1.7 | -0.077 | -2.4 |
| 1976 | -0.034 | -1.4 | -0.001 | -0.1 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.09 | | 0.10 | |
| S | 0.57 | | 0.54 | |
| F | 38.9 | | 35.5 | |
| N | 8359 | | 7245 | |

## Table B.23

### REGRESSION RESULTS FOR THE LOCUS OF CONTROL MEASURE

| Variable | Females | | Males | |
|---|---|---|---|---|
| | b | t | b | t |
| Constant | 1.950 | 15.5 | 1.609 | 11.1 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | 0.088 | 4.4 | -0.035 | -1.3 |
| Divorced, separated, or widowed | 0.037 | 1.0 | -0.021 | -0.4 |
| Years since first marriage | -0.001 | -0.1 | 0.013 | 1.5 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 0.025 | 1.3 | 0.026 | 1.2 |
| Two or more years, no BA | 0.037 | 1.5 | 0.066 | 2.4 |
| College graduate | -0.032 | -1.1 | 0.024 | 0.7 |
| High school measures | | | | |
| (Ability measure)/100 | 0.412 | 13.4 | 0.523 | 16.3 |
| (Percentile rank in class)/100 | 0.180 | 5.6 | 0.083 | 2.4 |
| Academic program | 0.070 | 4.1 | 0.060 | 3.2 |
| Vocational program | 0.030 | 1.6 | -0.050 | -2.3 |
| Race/ethnicity | | | | |
| Black | -0.224 | -7.3 | -0.026 | -0.6 |
| Hispanic | -0.161 | -4.2 | -0.120 | -2.8 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.003 | -0.7 | -0.006 | -1.3 |
| Father's occupation (SEI/100) | 0.064 | 1.8 | -0.011 | -0.3 |
| Logarithm of family income | 0.024 | 1.8 | 0.063 | 4.1 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | 0.000 | 0.0 | -0.045 | -2.2 |
| South | 0.050 | 3.0 | -0.034 | -1.8 |
| West | 0.074 | 3.6 | 0.027 | 1.2 |
| Year | | | | |
| 1972 | 0.707 | 19.0 | 0.493 | 11.3 |
| 1973 | 0.766 | 22.9 | 0.599 | 15.1 |
| 1974 | 0.774 | 25.5 | 0.584 | 16.1 |
| 1976 | 0.796 | 32.3 | 0.726 | 24.7 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.27 | | 0.23 | |
| S | 0.58 | | 0.61 | |
| F | 138.9 | | 99.7 | |
| N | 8358 | | 7243 | |

## Table B.24

## REGRESSION RESULTS FOR TOTAL HOURS SPENT IN STUDENT AND WORK ACTIVITIES

| | Females | | Males | |
|---|---|---|---|---|
| Variable | b | t | b | t |
| Constant | 24.250 | 8.8 | 29.471 | 9.3 |
| Marital status | | | | |
| Single (omitted) | | | | |
| Married | -5.685 | -13.6 | 1.077 | 2.1 |
| Divorced, separated, or widowed | -2.204 | -2.6 | -0.664 | -0.6 |
| Years since first marriage | 0.081 | 0.6 | 0.409 | 2.3 |
| Postsecondary education | | | | |
| None (omitted) | | | | |
| Less than two years | 4.873 | 11.6 | 5.752 | 11.9 |
| Two or more years, no BA | 6.739 | 13.2 | 7.302 | 12.9 |
| College graduate | 3.915 | 6.3 | 3.570 | 5.0 |
| High school measures | | | | |
| (Ability measure)/100 | 2.860 | 4.2 | 2.087 | 3.0 |
| (Percentile rank in class)/100 | 3.599 | 5.0 | 0.472 | 0.6 |
| Academic program | 0.279 | 0.7 | 0.833 | 2.0 |
| Vocational program | 0.556 | 1.4 | 0.091 | 0.2 |
| Race/ethnicity | | | | |
| Black | -1.055 | -1.5 | -0.767 | -0.8 |
| Hispanic | -1.620 | -1.9 | 0.484 | 0.5 |
| Other (omitted) | | | | |
| Family background | | | | |
| Parents' education | -0.152 | -1.7 | -0.192 | -2.0 |
| Father's occupation (SEI/100) | 0.855 | 1.1 | 1.503 | 1.8 |
| Logarithm of family income | 0.721 | 2.4 | 0.821 | 2.4 |
| Region | | | | |
| North Central (omitted) | | | | |
| Northeast | -0.984 | -2.5 | -2.574 | -5.7 |
| South | 0.368 | 1.0 | -0.497 | -1.2 |
| West | 0.347 | 0.8 | -1.090 | -2.3 |
| Year | | | | |
| 1972 | 0.795 | 1.0 | 3.597 | 3.9 |
| 1973 | -0.154 | -0.2 | 1.712 | 2.0 |
| 1974 | -0.928 | -1.3 | 0.613 | 0.8 |
| 1975 | -0.549 | -0.8 | 0.975 | 1.2 |
| 1976 | -1.952 | -3.2 | -0.192 | -0.3 |
| 1977 | 0.035 | 0.1 | 1.013 | 1.5 |
| 1978 | 0.410 | 0.7 | 1.573 | 2.4 |
| 1979 (omitted) | | | | |
| $R^2$ | 0.08 | | 0.05 | |
| S | 14.60 | | 14.91 | |
| F | 37.4 | | 18.9 | |
| N | 11134 | | 9183 | |

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